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Towards Co-Management of Hydro-Agricultural Infrastructures

Lessons Learnt from the Prey Nup Project in Cambodia

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**Towards Co-Management of Hydro-Agricultural Infrastructures:
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Foreword

Building Rule Systems and inscribing them in Law: A Requirement for Sustainable Water Resource Management

This document presents the primary lessons learnt from the Prey Nup (Cambodia) polder rehabilitation project and the transfer of management to a users' association created in the framework of the project¹. Launched in 1998, under the supervision of the Cambodian Ministry of Water Resources and Meteorology and with funding from the French Development Agency, this project is implemented by GRET and Handicap International/Action Nord Sud. Although it already shows significant results, it is still underway. It may therefore seem premature to attempt to draw lessons from the project. Yet, a certain number of important lessons are already certain and it therefore seems justified to make them explicit and discuss them.

- **Combining Rehabilitation and Transfer to Users: An Innovative Project in Cambodia**

In order to build the conditions for sustainable polder management, the Prey Nup project combines several complementary components: physical rehabilitation of infrastructures, land tenure regularisation and deed delivery, credit availability, agricultural production support, and construction of a farmers' organisation in charge of managing the polders. These different components are seen as complementing each other: credit and land tenure security are prerequisites for intensification, which will be made possible by the lifting of physical constraints (paddy sodication) and agricultural development work. These gains in productivity are themselves a condition on which the producers, seeing that dykes operating properly is fundamental for these increases in income, are able and willing to pay the user fee which is crucial for ensuring dyke maintenance and overall sustainability. In light of the limits on public management, and to ensure the legitimacy of these fees, the farmers' association was seen as the best way to manage the infrastructures. An integrated project such as this, founded on the decision to entrust management of heavy hydraulic infrastructures to a farmers' organisation, is an innovative bet in Cambodia and the region.

The crisis in State created and managed irrigated systems can patently be seen in numerous developing countries. Sometimes the State is not able to ensure provision of efficient water services, thus generating mediocre technico-economic performances. It is usually unable to collect the fees and, unable to subsidise infrastructure maintenance, it lets them progressively deteriorate until costly rehabilitation that does not solve the problem is needed, because the institutional reasons generating and reproducing these processes were not addressed (*cf.* Merrey D.J., 1996). In the face of this, in Africa, Asia, and Latin America, the neighbouring themes of Participatory Irrigation Management (PIM),

¹ This document is made up mainly of the third section of an analysis document, published in French, that covers the process and its results in detail: Kibler J.F. and Perroud C., 2004, *Construire une co-gestion des infrastructures hydro-agricoles : construction associative et réhabilitation de polders, l'expérience du projet Prey Nup (Cambodge)*, Editions du GRET.

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Management Turn-Over, and Irrigation Management Transfer (IMT) have been the leitmotiv for two decades, with - as is often the case in development - fundamentally correct ideas but uncertainty as to precise content and/or implementation conditions. In parallel with financing physical rehabilitation, donors imposed, sometimes against the will of States (and most often against the will of the Offices managing the irrigation schemes) an "institutional" restructuring, combining in variable proportions cessation of subsidies, restructuring and downsizing of these Offices, and transfer of responsibilities to producers. While hoping for greater effectiveness of the service, the latter saw themselves given "responsibilities" that they had not always wanted. Alongside a few successful examples (often linked to very specific contexts, such as intensive market gardening systems in Columbia, cf. Vermillion and Garcès, 1994)², one also sees voluntarist transfers to farmers that are poorly designed and greatly underestimate the complexity of tasks to be done and the issue of the economic performance of irrigation, and partial and limited delegations resulting from the institutional resistance of the Offices to massive restructuring. Ideological postulates on the necessity of total State withdrawal, primary concern with "getting rid of the hot potato", and institutional resistance have thus marked the process in which the desire to build sustainable solutions did not seem to be anyone's real concern, and in which the issues of learning, collective action, and legal status were largely brushed aside.

Yet, the fundamental work of E. Ostrom (1992) clearly shows the extent to which these issues were fundamental and how farmers' irrigated systems, disparaged by planning authorities because of the simplicity of their hydraulic infrastructures, were actually extraordinarily sophisticated when it came to institutions, that is the "rule systems actually put into practice", and it was indeed this capability to define, implement, and adjust pertinent, effective, and legitimate rule systems that formed the foundation for their sustainability.

In Cambodia, the Prey Nup project took its inspiration from these debates but was launched in a different context. The crisis among the major hydraulic infrastructures results from, in addition to the small amount of public means available, the civil war within the country. There is no highly present hydraulic Office or Company. Prey Nup is the first project to combine physical rehabilitation and management transfer. Following the initial studies, the project made the ambitious, risky choice of full transfer to a farmers' organisation, even though there were hardly any examples of such irrigation management by farmers in Cambodia³. Nevertheless, between a still weak State and the impossibility of turning to private regulation⁴, this explicit choice seemed, nevertheless, the only possible path.

Initially taking a very instrumental view of building a farmers' organisation (two years to rehabilitate and transfer!), the project rapidly evolved into a more reasonable timeframe (seven to eight years). It encountered the legal and institutional framework issue when the Ministry of Water Resources and Meteorology took up the question and elaborated the Law on Water and the project found itself a "pilot project" in this regard, contributing to defining the national policy while simultaneously relying on the policy to advance. Overly confident at first regarding the local society's internal regulation capacities, the project team also discovered that respecting rules (on user fees, on dyke protection, etc.) also requires effective support from public powers; from then on, it worked to integrate the PUC in the local politico-institutional fabric. From a "transfer" project, it evolved towards a logic of co-building the local organisation and legal and institutional framework, and building co-management of infrastructures, which required a certain degree of task sharing between the local organisation and the State and real involvement by the State on both the national (Ministry of Water Resources and Meteorology) and local (territorial administration) levels.

² Elsewhere, in Vietnam for example, grassroots management turn-over processes have taken place, on the initiative of farmers, in contexts where land redistribution and economic liberalisation have stimulated investment by farmers. Cf. Fontenelle J.-P., 2001.

³ Starting from the postulate of collective management of rigid water towers, GRET had even had a marked failure in terms of producer organisation in a small irrigation scheme in 1993 in Prey Veng Province.

⁴ Lengthy discussions on the pertinence or possibility of partially or fully private irrigation management are underway. Without entering into these discussions, note simply that polders are relatively unique in that it is not possible to cut non-payers off from the service. The legitimacy of the institution in charge of collecting user fees is therefore fundamental.

- **Four Important Lessons, Among Others**

The principal lessons learnt from this experience are given in this document. They are summarised below.

Hydro-Agricultural Infrastructures Are Not Only Agricultural

The areas concerned by the development are often multi-use areas, exploited by farmers, stock farmers, fishermen, etc. A purely "agricultural" infrastructure design leads to the exclusion of other users and poor knowledge of their expectations and constraints. All parties involved must be taken into account. Thus, in Prey Nup, the fishermen who need the canals to reach the sea broke the dykes that blocked their way. Intervention by the project team made it possible to modify the construction schema to include sluice gates and boat ladders. Similarly, a "community of polder users" was what was created, not a "polder agricultural producers' organisation".

Combine Support for Structuring and Implementing Rehabilitation

The classic rehabilitation project design places rural engineering at the heart of the action, considering the rest to be "supporting components". This inevitably leads to the construction and its logic (design, cost, schedule, etc.) taking precedence over the association building. And more than that, it forbids the indispensable construction adjustments (when it is not their reformulations!) in dialogue with users to take into account aspects neglected in the studies. This almost automatically leads to technical errors, works that are new but do not function, and dykes legitimately broken by users. Often these different components of the project are covered by different contracts, which make it even more difficult to coordinate work in the field. In the Prey Nup project, the fact that ANS/HI (the co-animator for the development support component) was also in charge of controlling construction and was able to influence a national company of good will made it possible to implement this vital coordination as it went along.

Build Local Water Management Capacity: Take the Requirement of Iterative Co-Elaboration of Rules Seriously

"Participation" is a leitmotiv in development interventions. The term's success goes hand in hand with a sustained fuzziness on what this "participation" means and the concrete modalities of implementing it. Building sustainable management requires specifying all the rules defining users' rights and duties, how the networks will be maintained, how the user fee will be collected and gathered, how conflicts will be managed, etc. and making these rules known and ensuring they are respected.

But the rules are applied only if they respond to interests and manage as well as possible the dilemma of individual interests vs. collective interests, and if the "incentive structure" that they produce pushes towards compliance with the rules. The pertinence and legitimacy of the rules are fundamental aspects. This can only happen through dialogue and negotiation.

Accordingly, one can not merely be content with defining, in the office, a standard set of by-laws, no matter how pertinent. It is necessary, even imperative, to work to elaborate these rules progressively with the users using a progressive and iterative process, starting from concrete situations and concrete problems to address in order to then discuss the best way to treat them to ensure both legitimacy and effectiveness. This is not to say that everything has to be elaborated "at the grassroots": working groups can be formed to make proposals. But these proposals must be discussed, amended, and adjusted by the grassroots then harmonised before being included in the by-laws and statutes. Nor does this mean that one needs to be strictly limited to the grassroots only: outside participants are an integral part of the process, that they contribute to organising and feed with ideas and suggestions. They point out the stakes and points to cover; they contribute to reflection based on outside resources or technical input,

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pushing farmers to test the “solidity” of the proposed solutions (“and what is this or that happens?”), etc. But it is not up to them to define these rules.

In addition to the trickle-down effects in terms of the pertinence and legitimacy of the rules, a process such as this also allows emerging leaders to build their own legitimacy, thus contributing to grounding the future organisation’s authority.

Sustainable Management Requires State Investment: For a Co-Management of Infrastructures Based on a Transfer of Rights to Benefit Users

Transferring responsibilities to a users’ organisation does not mean total abandonment by the State. Productive infrastructures are a public good. They belong to the State who is the guarantor of their proper use. The delegation modalities, defined in the legislation on water, specify the conditions for and limits to this delegation. Such a transfer must be done in a clear framework that defines the rights, responsibilities, commitments and duties of all parties. This framework must itself be elaborated with care, taking into account real situations, to be pertinent and operational. In this process, responsibilities are not the only thing transferred, rights are transferred as well: land rights, with the attribution of property deeds to farmers (identification of owners and the prospect of land tenure regularisation were powerful motivating factors); rights regarding infrastructure management; supervision rights, etc.

But the State’s commitment does not stop there. It must ensure that the organisation to which it delegates management is itself properly managed and effectively take on its control function. The delegation modalities can specify that the primary infrastructures, which users are unable to maintain themselves and which is a survey public good, remain the State’s responsibility and that the State must thus mobilise the means and skills necessary.

In addition, no matter how legitimate and capable the local organisation is, its regulatory capacities must be backed by the State. If the State does not explicitly confer “police rights” on the organisation it can not effectively exercise control over the dykes. If the obligation to pay the user fees is not officially endorsed by the State and if the State (via the regional and local territorial administration, local police services, etc.) does not support the organisation in its efforts to collect the user fees from poor payers, powerful individuals or landowners living elsewhere and not subject to peer pressure will find it easy to not pay, setting off the well-known downwards solidarity spiral: “if those who don’t follow the rules have impunity, why should I follow the rules”?

This question cannot be underestimated, given that local political clientelism and electoral demagoguery very rapidly worked in the opposite direction.

Act in a Responsible and Committed Manner

No matter how well prepared, a “project” in the field is never the simple implementation of the project document. The way in which orientations are turned into methodology choices, and the way in which work and interactions between components are organised create “paths of dependence” that mark the entire process. New parameters and underestimated or neglected issues appear and must be taken into account and handled. The alchemy of institution building requires tact and political awareness.

Steering such a process is a complex task that requires rigour and flexibility, even when the project is clearly defined. When certain elements are missing or inadequate (which is often the case!), it is an even more demanding task. Far from an apparent mathematical rigour, technical studies in hydraulics all too often choose to overlook important elements, which lead to errors in design and/or proportion.

The Prey Nup project did not fully avoid these constraints. If, out of ethical commitment and a sense of professional responsibility, the team had not reacted to them, gone beyond its mandate, and set up strategic steering, the results would not exist today. This raises true, basic questions as to project design and institutional conditions for implementing projects: What is the envisaged duration? How flexible will

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implementation be? How reactive can the project be? What will the modes of steering via the donor and the contracting authorities be? It is an understatement to say that donors' usual practices are not very suited. In the Prey Nup project, the unflagging support of the donor and the contracting authorities' confidence played a crucial role in supporting the innovations by the practitioner and overcoming the initial constraints (the planned duration was two years for the entire process!), while ensuring continuity. But one can not always count on favourable sets of circumstances to correct inappropriate initial choices.

After reading these lessons, one can no longer be satisfied with hollow visions of "participation", or pretend that an organisation can be built in two years, and that simple "State withdrawal" suffices to solve problems. Promoting sustainable management of hydraulic infrastructures is a necessity. But one that is not done just any way. It is a complex and demanding but unavoidable process. Not taking the full measure of the process, rushing it, or skipping stages is a sure path towards failure. One can no longer pretend not to know this.

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The Prey Nup Polder Rehabilitation Project: From “Rehabilitation” to “Management Transfer

Genesis and Extension of the Project

In 1994, the government envisaged rehabilitating the Prey Nup polders. A first study financed by the Asian Development Bank (ADB) concluded that a rehabilitation project would be technically and economically feasible. And yet, nothing was done with the polders following the study because of insecurity in the nearby mountains.

In 1996, at the request of the Kingdom of Cambodia, the French Development Agency (AFD) financed an "additional study of the Prey Nup polder rehabilitation project". This study was entrusted to a group made up of BDPA, GRET and HI. The study conclusions confirmed the rehabilitation's economic interest and led to a project proposal that clearly displayed the "management transfer" objective.

From "Rehabilitation" to "Management Transfer"

The "management transfer" option materialised during exchanges between the GRET/HI/BDPA group, the government, and the donor during the project conception phase.

- The terms of reference of the additional study focused on the physical rehabilitation of infrastructures and the agricultural development of the perimeter. Among the questions asked, in addition, figured the possibility of "creating collective organisations [...] to manage and maintain the rehabilitated works."⁵

- The invitation to tender for the study was awarded to a group made up of two NGOs (GRET and HI) and a consultancy firm (BDPA). BDPA was entrusted with the construction-related technical study and GRET and HI with agricultural development.

- The study was conducted in June and July 1996. The NGOs had been present in Cambodia for several years and emphasised their awareness of the need for "active participation by villagers"⁶. At the end of the study, the project proposal clearly announced for the first time the objective of management transfer, desired by the decision-makers: "In the framework of the Prey Nup polder rehabilitation project, the determination to entrust the maintenance and management of the improvements to users [was] very strong and [resulted] from a shared political will of government and donors."⁷

- Thus, the project proposal was built around two major components: construction (and control), and development support. "The proposed project will take place over 4 years, 2 of which will be devoted to the rehabilitation. This construction will cover the rehabilitation of sea protection dykes, water evacuation works, and circulation paths (canals and tracks). Development support activities will be conducted in parallel. This component aims at the following objectives: transferring polder management from the State to users by creating local associative structures ("associative structuring" component), and agricultural production development: intensification of rice cropping and diversification. This component will be supported by a rural credit scheme."

Consulted through surveys and discussion workshops on this "management transfer" option, the users and local community leaders expressed their commitment to getting organised to take over polder

⁵ *Terms of Reference for the additional study, MAFF/AFD, 1996*

⁶ *Methodology Memorandum in the GRET/HI/BDPA group's proposal, 1996*

⁷ *Additional Study Report, GRET/HI/BDPA, 1996*

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management. This commitment, made by a handful of villagers who were above all interested in obtaining the physical rehabilitation of dykes and works, was not made formal.

The project design evolved again under the influence of the French technical support provided to the Ministry of Agriculture and budgetary limitations. A "land tenure" component was added to facilitate user fee calculations and launch the regularisation of land tenure rights. Some construction was removed from the project, and the initial project duration was planned to be two years.

In 1997, the AFD and the Kingdom of Cambodia signed the first financing agreement for a two-year project covering four polders. Three invitations to tender were launched concerning project implementation. They led to three practitioner contracts:

- the construction was entrusted to the Seng company (a Cambodian public works company);
- HI was to provide supervision/control; and
- development support was entrusted to the GRET/HI group.

Rehabilitation was launched in January 1998. Development support actions began in May 1998, during the campaign for legislative elections.

As soon as it was established, the new elected government very quickly confirmed its political will to rehabilitate Cambodia's major irrigation schemes and transfer their management/maintenance to users' associations. The Prey Nup project was a pioneer in this field and has had encouraging results, with high participation by villagers in collective reflections on how management would be transferred. Simultaneously, the launch of construction revealed technical difficulties and gaps that led to the revision of the rehabilitation designs, after consultation with users. In 1999, a second agreement extended the project duration by two years and widened its zone of intervention to six polders. The practitioner contracts were renewed.

In 2001, the Prey Nup project was acknowledged as a pilot experiment in management transfer in Cambodia. The Polder Users' Community (PUC) was created, officially acknowledged by the government authorities (it was the first association of farmer water users recorded by MOWRAM), and operational (user fee collection, works management, etc.). A feasibility study in a third phase defined the major outlines of actions to be implemented to consolidate and formalise the institutional structure.

In 2002, a third financing agreement was signed and made it possible to complete the construction and consolidate accomplishments. The planned duration was three years.

The project was fully financed by a French grant, via AFD. The AFD's total contribution under the first two agreements was 6.9 million euros. The per-hectare cost of the rehabilitation and the transfer was 627 euros per ha. The third financing agreement was in the amount of 3.2 million euros. Thus, the total cost of the operation was 10 million euros, or 920 euros per ha.

Objectives and Design

- **Five Complementary Objectives**

The contractual documents set five complementary objectives:

- The physical rehabilitation of hydraulic infrastructures in order to protect 11,000 ha of rice-growing land from the intrusion of salt water, manage the freshwater-space in the polders, and facilitate circulation within the perimeter.

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- The transfer of polder management to a “polder users’ community” allowing more efficient and sustainable management of infrastructures and reducing the weight of recurrent costs borne by the State.
- The establishment of a polder land map making it possible to calculate the user fee amounts, and preparing the regularisation of polder land ownership rights.
- The establishment of agricultural production support mechanisms allowing maximal optimisation of the rehabilitated infrastructures to benefit local rural society.
- The establishment of a sustainable rural credit service that would favour the intensification and diversification of family farms.

General Objective, Secondary Objectives...

Agricultural and Rural Development in the Prey Nup Zone

These five complementary objectives support the attainment of a general objective that was not made explicit in the texts: sustainable growth in rice production? a sustainable increase in villagers’ incomes? poverty alleviation? A general, consensus-building expression is perhaps “the agricultural and rural development of the region”.

A Project that Became “Experimental” and then Progressively “Pilot”

As the project advanced, it came to be acknowledged as being of an “experimental”, and then “pilot” nature on two levels: (1) the transfer of management of a hydro-agricultural scheme to users; and (2) the cadastral registration method. In these two areas, the activities developed by the project took on national resonance as the local experience was able to provide input for the national policies under elaboration. These objectives were not overtly planned when the project was launched.

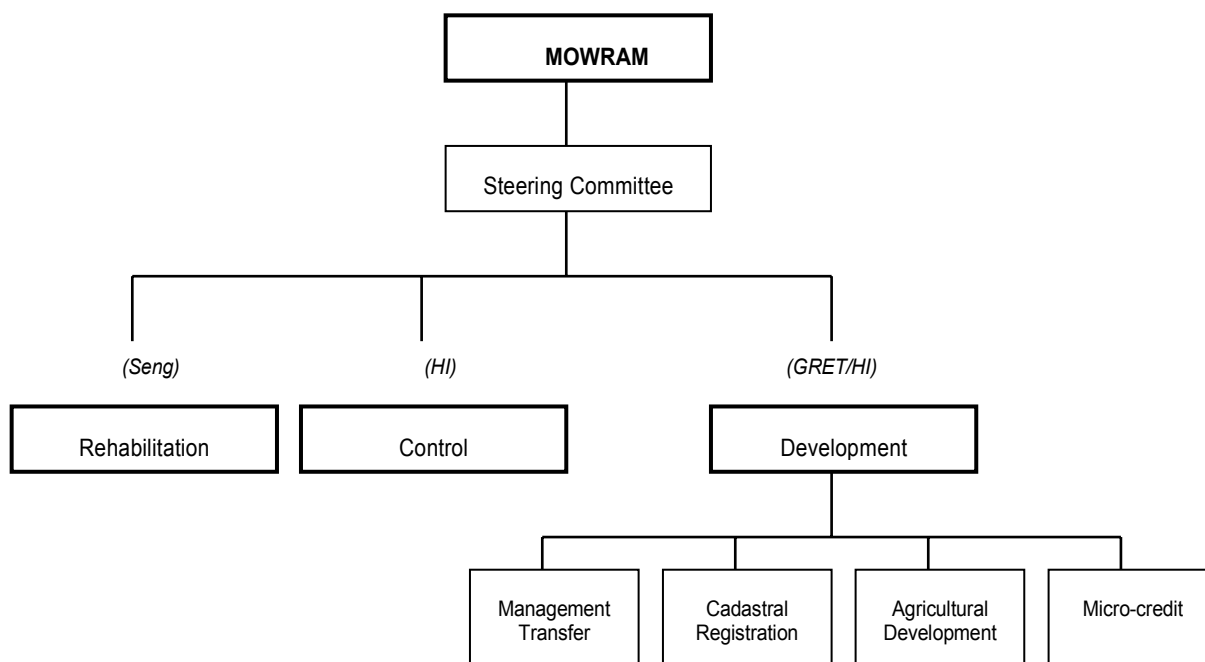
• Institutional Set-Up of the Project

The contracting authority for the project was initially the Ministry of Agriculture, Forests and Fishing; it transferred responsibility to MOWRAM when it was created in 1998. The Under-Secretary of State with MOWRAM was appointed project leader. Based in Phnom Penh and was responsible for the overall supervision and coordination of the three components.

Based in Prey Nup, the three practitioners (Seng, HI, and GRET/HI) implemented the three components: “construction”, “works supervision”, and “development support”. The “development support” component contains four sub-components: management transfer, agricultural development, land tenure security, and micro-credit. The three practitioners are directed by the project head, to whom they report monthly.

A project “steering committee” was formed for the province, and chaired by the Governor of Sihanoukville. It brought together the various technical departments concerned by polder development: agriculture, water resources, land register, rural development, and environment. It meets on request of the project head and on invitation by the Governor; its role is to ensure the proper advancement of the project.

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The Results as of the End of 2003

The "Physical Rehabilitation of Infrastructures" Component

- 89 km of dykes were rehabilitated and are functional
- 36 hydraulic works are operational
- 133 km of canals were dug or dredged
- 39 pirogue ladders are in place to cross dykes
- 72 limnimetric scales have been installed close to the works + other scales within the six polders
- fixed topographical markers have been installed
- a detailed topographic survey of the six polders is available

The "Micro-Credit" Component

- a sustainable micro-credit institution (EMT) is implanted in the region, and offers solidarity lending and personal loans to households in all the villages
- 5,945 households contracting solidarity loans share a total outstanding loan balance of 1.35 billion riels (30/11/2003)
- 106 households contracting personal loans share a total outstanding loan balance of 85 million riels (30/11/2003)

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The "Land Tenure Regularisation" Component

- 24,222 plots have been outlined by the land registry's services and validated with public land register procedures (nearly all of the polders' cultivable surface)
- the majority of land registers and the corresponding cadastral maps are available
- 9,512 property deeds have been delivered (close to 40% of the plots)

The "Agricultural Development" Component

- more than 1,500 ha have been replanted (out of approximately 3,000 hectares that could not be cultivated pre-project)
- an increase in average rice yield on the order of +1t/ha for the ensemble of polder land farmed
- seven varieties of paddy introduced and validated by farmers and consumers, thus securing yields, improving quality, and increasing the selling price of the production (notably for the three perfumed varieties)
- dissemination of these new varieties has begun on more than 1,000 ha in 2003
- technical references have been validated and are being distributed to intensify rice cropping systems
- more than 400 farmers have joined "progress groups" within which they share their experiences, notably as concerns applying the technical recommendations
- new varieties of high-performance vegetables (beans, cucumbers, etc.) have been introduced
- new cash crops have been introduced and are being developed (corn, mushrooms, etc.)
- more than 1,000 farmers have attended training sessions on market gardening techniques
- a proximity animal health service scheme has been set up: 38 village animal health agents, vaccination campaign, etc.; an informal but operational association manages a veterinary pharmacy
- 900 stock farmers have attended training courses and visits on pig and poultry stock farming practices

The "Management Transfer" Component

- a representative Prey Nup polder users' community (PUC) of nearly 15,000 members was democratically created
- the PUC leaders were renewed by direct election
- the PUC has legally been acknowledged by the supervisory Ministry (MOWRAM), and been legitimised by users and local authorities
- a consultation committee between the PUC, the local territorial authorities, and the technical authorities was formally created and is active
- specific tools and procedures are operational for water management, user fee collections and financial management, and infrastructure supervision
- a maintenance plan has been prepared and discussed with the PUC's elected officers
- the PUC has been operational since 2001 and ensures water management, infrastructure supervision, and user fee collections and financial management
- the PUC's self-funding capacities are improving, with nearly 120 million riels collected in 2003 (approximately 30,000 US dollars)
- since 2003, the PUC has been taking on greater responsibilities for maintenance
- discussions are underway between MOWRAM, the PUC, and the local authorities to consolidate a functional institutional set-up

Lessons Learnt

With its diverse dimensions, the Prey Nup project was confronted with a certain number of questions and problems. Some relate to project approaches and aid mechanisms and are of a very general nature although the Prey Nup project placed them in sharp relief. Others concern hydro-agriculture infrastructure rehabilitation projects. Finally, others relate to implementing institution-building projects.

Even if the process is not yet complete, a certain number of lessons can already be learnt from the Prey Nup project and are the subject of this document. The lessons learnt have been organised in four chapters: the project's experimental nature (Chapter 1); the need for co-management of the rehabilitation transferred (Chapter 2); the methodological foundations of an exercise in institution-building (Chapter 3); and management transfer project design (Chapter 4).

Prey Nup: An Experimental Project, and the Co-Construction of a Local Institution and the Legal and Institutional Framework

On paper, development projects are reassuringly coherent. The contextual analysis, objectives, and operational modalities are defined and fit together logically. The methodology references and knowledge of the field are supposed to be sufficient.

In practice, this is rarely the case. To a greater or lesser degree, the project teams must innovate, experiment, and “open up” new subjects. Sometimes this experimental dimension is at the heart of the action. This was the case for the Prey Nup project, which innovated a management transfer and support for the creation of an organisation in a legal framework that had not yet been stabilised. The project found itself, although it had not initially been planned, contributing to the elaboration of the legal and institutional framework that the project needed to advance.

This type of experimental project raises specific problems in that one must work “without a safety net”, pass through intermediary stages, and involve local stakeholders in complex processes that one is not certain will be completed and that remain virtual for these same stakeholders because of the length of time needed to complete the rehabilitation.

Yet, these dimensions were not perceived and clarified at the start as they should have been. The project framework did not include these aspects in the project design, phases, stages, and working methods. Is it not necessary to clarify which aspects of a project will require experimentation in order to result in more suitable designs? Can innovative projects easily find their place in donors' classic procedures, and with short timeframes (the two years initially planned)? Isn't strategic steering that closely associates the practitioner and the contracting authorities a condition for the success of this type of project?

An “Experimental Project” in Transferring Management

- **The Experimental Dimensions of the Project**

Initially designed as a “classic” hydro-agricultural system rehabilitation project, the Prey Nup project rapidly revealed an “experimental” dimension.

The Genesis of an “Experimental” Project

The terms of reference for the feasibility study conducted in 1996 envisaged a relatively classic project to rehabilitate and develop a hydraulic system while simultaneously requesting that the possibility of “creating collective organisations [...] to manage and maintain the rehabilitated system” be studied.

Noting a “shared desire on the part of the Government and the donors [...] to entrust users with the maintenance and management of the developments”, the consortium in charge of the study elaborated the project proposal in its final form, which was organised in five complementary components: “physical rehabilitation” (including works and works supervision), “agricultural development”, “micro credit”, “land tenure security”, and “management transfer”.

The objectives of this last component were clear: “promote Village Hydraulic Management Groups, four Polder Committees, and eventually a General Association of Polder Users in charge of technical management and maintenance for the polders, collecting and managing the users’ fees due, and daily recording of pluviometric and limnimetric data from the polder”. In the context of Cambodian society, frequently said to be individualist and resistant to any form of collective organisation, the ambitions were exorbitant: 8,500 ha of paddy and 6,500 user households... Out of both caution and for budgetary reasons, the donor offered to finance an initial two-year phase “to see”.

When the project was launched in 1998, the practitioner in charge of development support activities rapidly determined that the project’s real “challenge” lay in the management transfer operation and placed this component at the centre of his operational strategy, going against what was then the centre of attention for the contracting authorities and politicians—the rehabilitation. This conjuncture gave the field team sufficient room for manoeuvre to display its caution early on and position its activities from an experimental angle. Initially, we proposed to “promote village-level ‘working groups’ on priority subjects so that, if it was possible to create such working groups, we would have the first ‘building blocks’ for the future ‘village hydraulic management groups’ that we wished to put in place officially towards the end of December”.

It was from this moment on that the various partners involved began to manage, present, and consider the “experimental” dimension of the project.

The Prey Nup project was of an “experimental” nature in three areas:

- the management transfer postulate

In Cambodia, was it realistic to envisage transferring the management of hydro-agricultural systems to users? How? What conditions would need to be present to do so?

- the design of the management transfer project

Was designing the project in five complementary components to be executed simultaneously an effective and efficient choice? What design improvements could be brought to future management transfer projects?

- project implementation

Were the strategies and methods adopted for project implementation effective and efficient? How could they be improved when implementing future management transfer projects?

It is interesting to see that the Prey Nup project’s firmly “experimental” nature had a positive effect on the attitude and commitment of the partners (practitioners, the contracting authorities, the donor, politicians, and user leaders) who, overall - and naivety set aside - were willing to “play the game” (invent solutions, overcome unexpected difficulties, etc.).

An obligation to “analyse and document” the experience was also strongly felt and shared, and is illustrated by this book.

- **The Gamble of Transferring Management to a Local Organisation: A Calculated Risk?**

Neither the history of water management in Cambodia nor the ups and downs of the polders since they were created provided solid references to support the option of transferring management to a local organisation. It was not a matter of transferring management to a farming society with prior experience in water management and the collective action difficulties that this causes. Instead, it was a matter of creating these capabilities when the additional feasibility study in 1996 had already identified the considerable challenge this would represent.

The Social Characteristics of the Area, as Identified by the 1996 Study

Highly Individualistic

The 1996 study confirmed that "Cambodians [had] a reputation for being enterprising, individualistic and dynamic but very little inclined to associations or other groups" but that "solidarity [was] a concept very much alive in rural Cambodia". The hypothesis formulated at the time was that "[this] entrepreneurial spirit [was] good for Prey Nup and [would] allow small entrepreneurs to adapt rapidly to the new context created by the rehabilitation." Today, this hypothesis has been proven true with the current motorised cultivator equipment activities.

Few Village Organisations

The only village organisations were the 11 "very powerful and well structured" pagoda associations. "The village chief [played] the role of coordinator and foreman for the collective [maintenance] work" done without pay by the population.

Public Services Traditionally Very Present

"The population [was] used [...] to [a] form of dependency on and submission to the State." Government services seemed to show "marked authoritarianism" and a "lack of opposition forces" could be seen. The "arrival of the democratisation of political life" was hoped for starting with the 1998 elections even though one could not expect this to "shake up old habits, at least not initially".

Multiple Training Needs

"The impetus of the 1960s was broken after more than 20 years of instability and war" and "the country had fallen considerably behind" in all areas. Interviews with villagers revealed "a desire to understand and improve the present system and make progress" but "as concerns associative life, the learning period would be all the longer because this was not a specific request by either the authorities or the people."

"All these factors within the Prey Nup site [were] not conducive to the rapid creation of a new social structure that would be representative, well formed, and acknowledged everywhere" - all the more so as the population's (social and religious) diversity, the diversity of villagers' activities, the country's recent history, and the lack of local skills in this field were all potential hindrances to attaining this goal. The feasibility study team insisted that "it [was] important to emphasise the size of the task to be accomplished" regarding the goal of community structuring. "Outside support [would be] indispensable and [would have to be] scaled appropriately to provide the driving and catalysing elements at the right time." A new synergy would need to be found between government authorities and the population: "The technical services and authorities in the area [would] in no way be excluded from the future organisations and the active participation solicited by their leaders [was] already ensured".

"In the framework of the Prey Nup polder rehabilitation project, the determination to entrust the maintenance and management of the improvements to users [was] very strong and [resulted] from a shared political will of government and donors." In the face of these challenges, the study started from the postulate that "to function, the hydraulic system [needed] a complex, negotiated, and adaptable ensemble of rules at different levels of organisation. It [needed] control and disciplinary systems that

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[would] ensure that the stakeholders obey these rules [...].” For Prey Nup, “[one should not] apply a standard model, but launch a process that [would be] negotiated in the field with all involved.”

A certain number of proposals were made:

- Two-tiered representation with the polder committees (structured according to hydraulic homogeneity) and village associations (structured according to social identity).
- “In a Cambodian context that [was] still vague as far as the status of non-profit organisations was concerned, the project should support any official acknowledgement of these new structures by local and national authorities.” The absence of a pre-existing institutional framework and the need for clarification of the land tenure situation (land owner members of the associations) were thus pointed out.
- The study revealed that villagers would prefer to pay user fees rather than do the work themselves, but the question of managing the funds remained, notably due to the level of security in the country. At this stage, the projected amount of the user fee was 20 USD per hectare.
- The authorities' role. The infrastructures would remain the property of the Government, which would grant use of the infrastructures to the polder committees. Management delegation would be formalised. The Government would have the power to verify the committees' management and would, through its technical services, ensure that the specifications for the scheme were respected. In the case of unpaid user fees and repeated failure by the committees to recover the amounts due, “the local authorities could then take over and exercise police power vis-à-vis individuals.” “Without this support from the authorities, the associations [would have] no means of pressure and [would] rapidly see their role eliminated.” Technical support could be the object of a contract between the technical services and the polder committees.
- Maintenance and repairs. “Maintenance and repairs are fundamental to ensuring the proper operation and effective durability of the rehabilitation.”
- **The Difficulties Encountered: Raw Materials for Analysis and Documentation**

Implementing a development project is never a matter of simply applying of the chosen method according to the planned timeframe. There are always unforeseen events and elements that upset, more or less, the clean logic of the project document and that require one to adapt, react, and innovate. Crucial elements, underestimated during the diagnostic or project elaboration, appear. This is the case in all projects, and even more so in institution-building and experimental projects where managing the unexpected and strategic steering are all the more vital. Thus, inevitably, difficulties of various types cropped up throughout the Prey Nup project's first years.

The following box and schema summarise the main problems encountered during project implementation. Impressive or discouraging at first reading, this list of problems makes an interesting study. First, one can see that there were different - more or less predictable - causes to these problems. Second, an examination of these difficulties provides the raw materials for this exercise in experience analysis and documentation and leads to proposed improvements for future operations.

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Main Difficulties Encountered

1998: flaws in rehabilitation design

The rehabilitation was designed by the contracting authority and the donor, based on a proposal established from limited consultation with users and government authorities during the feasibility study. A few months after the project was launched, flaws in the rehabilitation design became apparent.

1998: lack of management mechanisms and financing for the transition period

The construction generated major inconveniences that rapidly became apparent: lack of openings in dikes for pirogues to pass, suppression of former drainage systems, etc. Temporary pirogue "ladders" needed to be built, and drainage could only be managed by using excavators to open gaps in the dikes under construction. Yet, none of this had been planned in the initial project design.

The transition, however, promised to take a long time. Initially planned for two years (1998 – 1999), the construction fell behind schedule: polders 1 to 4 only became (partially) operational in May 2001. Unable to collect user fees in 2000, the Polder Users' Committee (PUC) was penniless.

1999-2000: lack of land registry support to prepare the user fee registers

Land registers are crucial tools to establish user fee registers, an indispensable stage in the fee collection process. Yet, launched in January 1999, the cadastral registration of the polders could only be conducted during the dry season and it took four years to complete the cadastral registration of the six polders.

The PUC members devoted a huge amount of time to preparing and updating the provisional village plots—time that could not be spent preparing water management and infrastructure maintenance services.

2000: absence of mechanisms to compensate for land lost to dikes

The new dike layout determined when designing the rehabilitation encroached on formerly cultivated lands. However, nothing was planned to compensate the families penalised by this.

2000: absence of a legal framework permitting the PUC to operate

In May 2000, the PUC's statutes were approved by the majority of users. The PUC still needed to obtain legal and institutional acknowledgement giving it sufficient authority to assume the responsibilities delegated to it (setting and collecting user fees, enforcing "polder rules", etc.). The judicial/legal framework (Law on Water, sub-decree pertaining to Farmer Water Users Communities (FWUCs), etc.) was still being elaborated and not yet operational.

2000-2001: the agricultural development of the polders hampered by construction delays

The construction delay and the inconveniences caused by the construction made it impossible to test and disseminate the procedures to re-launch rice cultivation and intensify rice cropping. In these conditions, the increases in surface and yields hoped for by users were late in materialising and this delay generated dissatisfaction among users when it came time to pay user fees.

2001: an unfavourable context for the first user fee collections

The first user fee collection at the start of 2001 was difficult. The users felt that the terms of the implicit "contract" between them and the project had not been respected: the construction was not yet complete and the users had not yet benefited from the rehabilitation. Out of a desire to avoid making waves and to assert their role vis-à-vis the emerging PUC, the local authorities relayed the users' (their future electors') concerns during the upcoming community elections.

The PUC's members devoted a huge amount of time explaining, convincing, and collecting-time that could not therefore be spent preparing water management and infrastructure maintenance services.

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2001: water management delegated in unfavourable conditions

After great effort and numerous injunctions, polders 1 to 4 became partially operational in May 2001. The intermediary dikes, however, were not complete and not all the isolation cofferdams had been removed, making water management extremely difficult. In addition, the topographic surveys needed to prepare water management plans only became available at a late stage and turned out to be partially wrong. This was also the case for the limnometric scales.

In these conditions, the PUC members, who were already very busy collecting user fees, had very little time to prepare and implement water management for the 2001 season.

2001–2002: a “drought crisis” and “crisis of confidence”

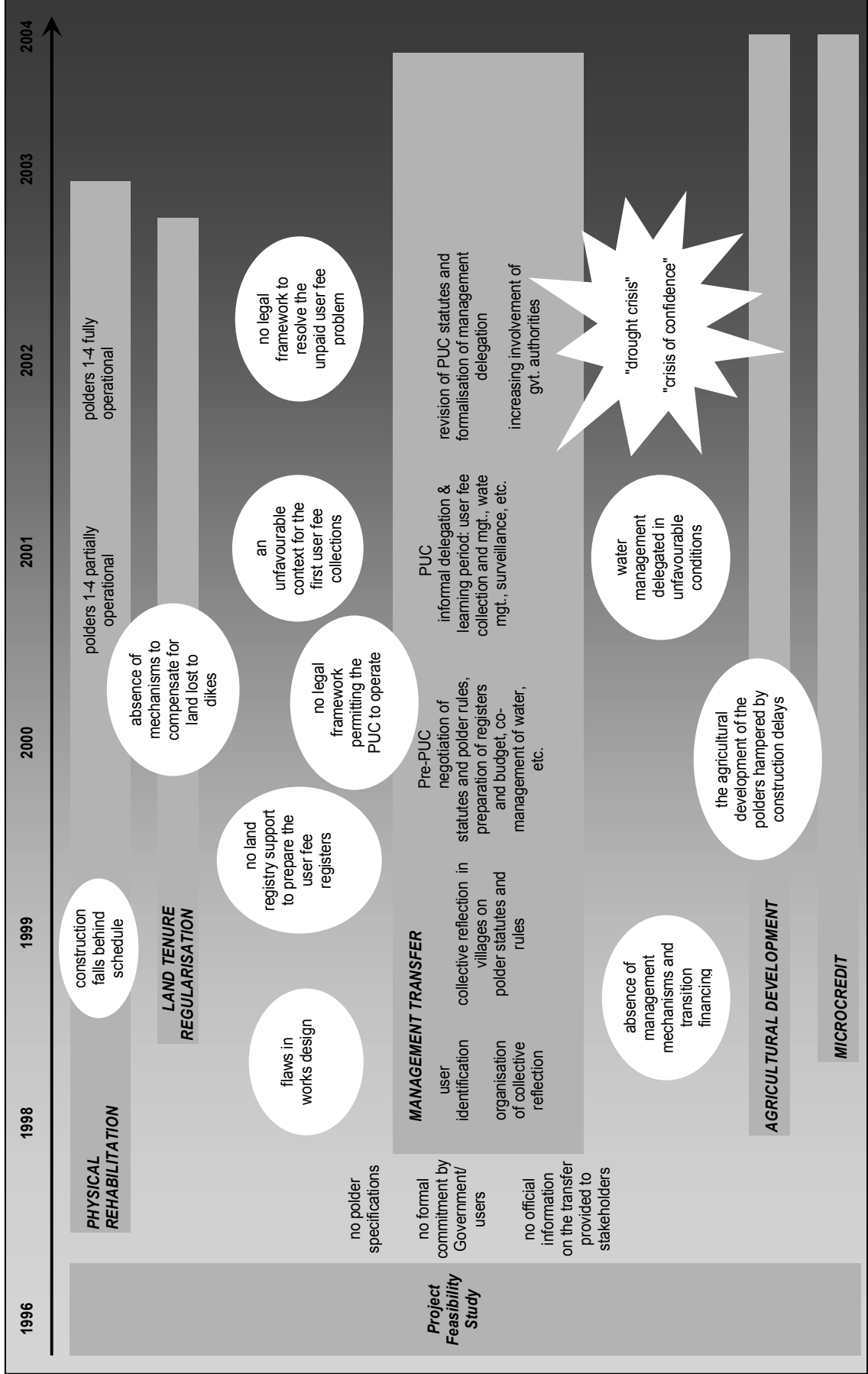
Due to exceptionally heavy rains (flooding) and early drought, the 2001 harvest was poor. In the context of the electoral campaign, the latent discontent led to a “crisis of confidence” among the ensemble of stakeholders; this crisis revealed the gaps in the definition and understanding of the various parties’ respective duties.

For the users, the payment of a user fee must result in increased yields; they confused “service” and “benefit”, and were unaware of the limits of and conditions for the service that could be provided. Worried about their constituency, the local authorities “dropped” the PUC and accused it of all the problems, forgetting that they themselves were representatives of the Government who had launched and supported a country-wide management transfer policy. When the time came to evaluate yield losses and grant user fee exemptions, all the stakeholders contested the monitoring procedures and references chosen by the project. Under a great deal of pressure, some of the PUC members became discouraged and indicated their intent to “call it quits”.

2002: absence of a legal framework to solve the problem of unpaid user fees

Without a national legal framework (Law on Water), and in view of the upcoming legislative elections in 2003, the government authorities adopted a prudent attitude and were reticent to “pursue” users who did not pay their fees and who thus remained unpunished, at the risk of launching a vicious cycle of fraud (negative incentives).

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A systematic analysis of the problems encountered reveals four main categories of causes which will be discussed below:

- gaps in the national legal framework and the commitment of government authorities (due to the fact that the project predated legislation on the subject)
- flaws in project design
- mistakes in project implementation
- unpredicted events

Categories	Some of the Problems Encountered...
gaps in the legal framework and the commitment of government authorities	<ul style="list-style-type: none"> ▪ users insufficiently informed about the management transfer process by government authorities ▪ absence of a legal text providing the PUC with legal status and setting the conditions for PUC operations and the government authorities' obligations ▪ absence of a legal text making it mandatory to respect the polder rules ▪ absence of a legal text defining the limits to and conditions for the service expected of the PUC ▪ absence of a legal text defining the responsibilities of MOWRAM and the PUC ▪ etc.
flaws in project design	<ul style="list-style-type: none"> ▪ insufficient consultation of users when defining the polder developments ▪ absence of a detailed preliminary construction plan ▪ absence of a formal commitment by Government and users ▪ absence of management and financing mechanisms for the transition phase ▪ absence of mechanisms to compensate families for land lost to dikes ▪ absence of an authoritative reference document and of a formal monitoring system legitimised by all ▪ discrepancy between the availability of cadastral records and the establishment of user fee registers ▪ etc.
mistakes in project implementation	<ul style="list-style-type: none"> ▪ construction delays ▪ delays in the installation of limnometric scales and topography errors ▪ notion of "service" not explicitly explained to users before the collection of user fees ▪ insufficient preparation of PUC members in polder management techniques ▪ etc.
unpredicted events	<ul style="list-style-type: none"> ▪ heavy rains and drought ▪ elections ▪ etc.

A “Showcase Project” that Contributed to the Elaboration of a National Policy Framework

- **A Parallel Process: the Elaboration of a National Legal Framework**

The Prey Nup project was launched in 1998. At that time, there was not yet a national legal framework defining the procedures for and modalities of transferring the management of an irrigation system to a Farmer Water Users Association (FWUA). “Experimentation” was therefore needed.

At the same time (from 1998 to 2002), the Government began reflecting on the elaboration of a nation-wide legal framework: a Law on Water, a sub-decree regulating management transfers, etc. Thus, two processes were conducted in parallel, one in the Prey Nup polders and the other among government.

In reality, these two parallel processes were rapidly identified as being interdependent: the project provided references to the government for the elaboration of a legal framework, and at the same time the project needed a minimal legal framework to move forward. We therefore took the initiative of favouring a dovetailing of these two processes.

Two Parallel Processes: a Timeframe

- the process of transferring management of Prey Nup polders to the PUC

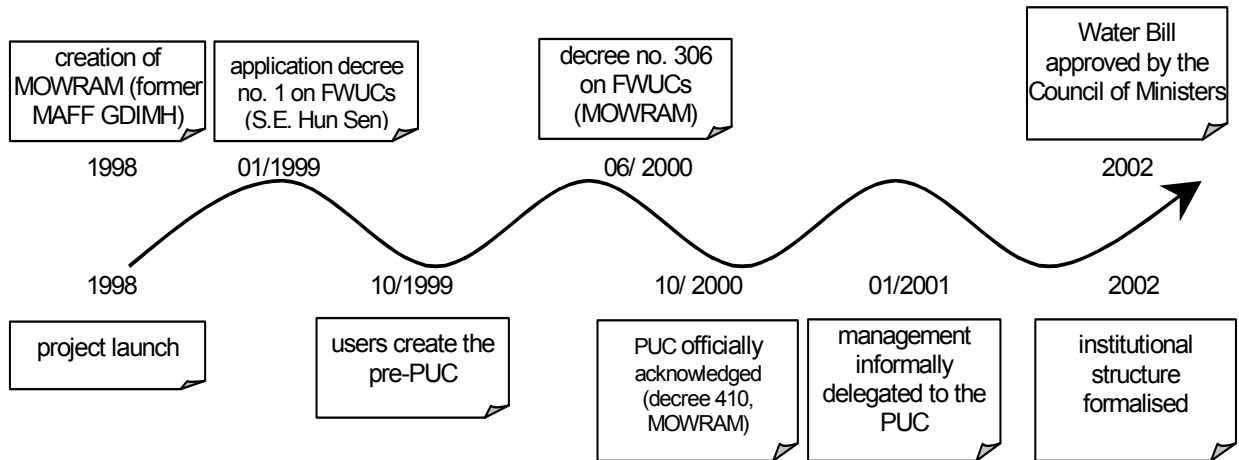
After one year of collective reflection in the villages, the polder users created a “pre-PUC” in October 1999. One year later, in October 2000, the PUC was officially acknowledged by a ministerial decree (no. 410) issued by MOWRAM. In 2001, polder management (collecting and managing user fees, water management, surveillance) was informally delegated to the PUC. Based on this experience, the process of revising and formalising the institutional structure was launched at the start of 2002.

- the process of elaborating a legal framework governing management operations nation-wide

In 1998, the Ministry of Agriculture, Forests and Fishing's (MAFF) Department General of Irrigation, Meteorology, and Hydrology (DGIMH) was elevated to the rank of Ministry of Water Resources and Meteorology (MOWRAM).

Immediately thereafter, in January 1999, a ministerial circular (no. 1) by the Prime Minister set the general orientations of the irrigation scheme management transfer policy. In June 2000, a ministerial decree (no. 306) set forth the general scope of the transfer procedures and modalities. Simultaneously, the MOWRAM elaborated a Water Bill with international technical support (World Bank, Asian Development Bank). The Bill was approved by the Council of Ministers in early 2002.

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The concomitance of the two processes led the practitioner to extend its field of intervention by calling on provincial and national policies. The project implemented various mechanisms to mobilise stakeholders and maintain bridges between the "micro" and "macro" levels. Transitional solutions also needed to be found to allow the local process to carry on.

• **Intermediation and Initiating Dialogue Among the Various Institutional Levels**

To ensure overall coherency in PUC institution building, the project needed to act simultaneously at three levels - the polders, the province, and nation-wide:

The polders

The action began with users and their representatives and led to the creation of the PUC. It was then time to consolidate the democratic life of the PUC (its members), and the respect/acknowledgement of the PUC by users (both members and non-members).

The province

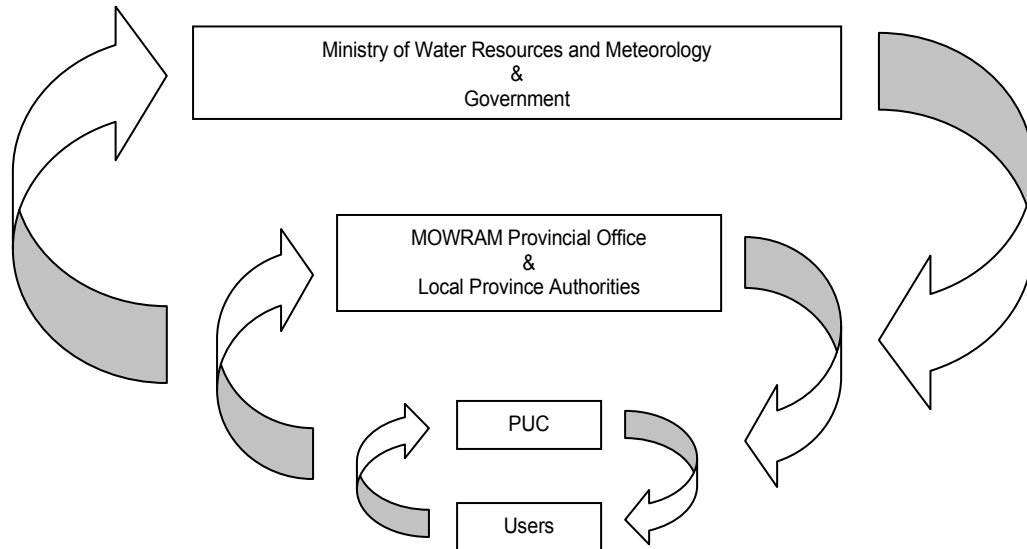
Covering more than 10 communes and including 12,000 members, the PUC was an unsettling change in the existing institutional landscape and needed to win acceptance and acknowledgement from local authorities - district, village, and commune leaders in particular. This acknowledgement was important to ensure its legitimacy vis-à-vis users. The PUC also needed active support from the local authorities in order to enforce polder rules and collect user fees. Solutions were sought and found with the District Chief and the Governor of Sihanoukville, motivated by the political and financial stakes behind the PUC which was soon to generate an annual budget equal to the Province's operating budget.

Nation-wide

The existence of the PUC was conditioned on its being acknowledged nationally by its supervisory Ministry, MOWRAM. Action was therefore needed at this level. As mentioned above, the stakes extended beyond the polders: the Government was preparing a nation-wide legal framework to regulate management transfers across the country. One therefore needed to transmit the requirements for polder management transfer to the appropriate Ministries and take into account the policy orientations adopted by the Government when building local institutions.

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Synergies were sought between these three levels, which fit into each other like Russian dolls. The results of the “polder” action (the creation of the pre-PUC, for example) mobilised “province” policies and reinforced the “national” decision-makers’ will to support the process. “National” support (official acknowledgement of the PUC in a ministerial decree, for example) encouraged the local “province” authorities and “polder” users to get more fully involved in the process (cooperation for the collection of user fees, for example), etc.



So that these two processes could feed each other reciprocally, the practitioner had to ensure that “bridges” between the “micro” and “macro” levels were created and maintained. Various mechanisms were used:

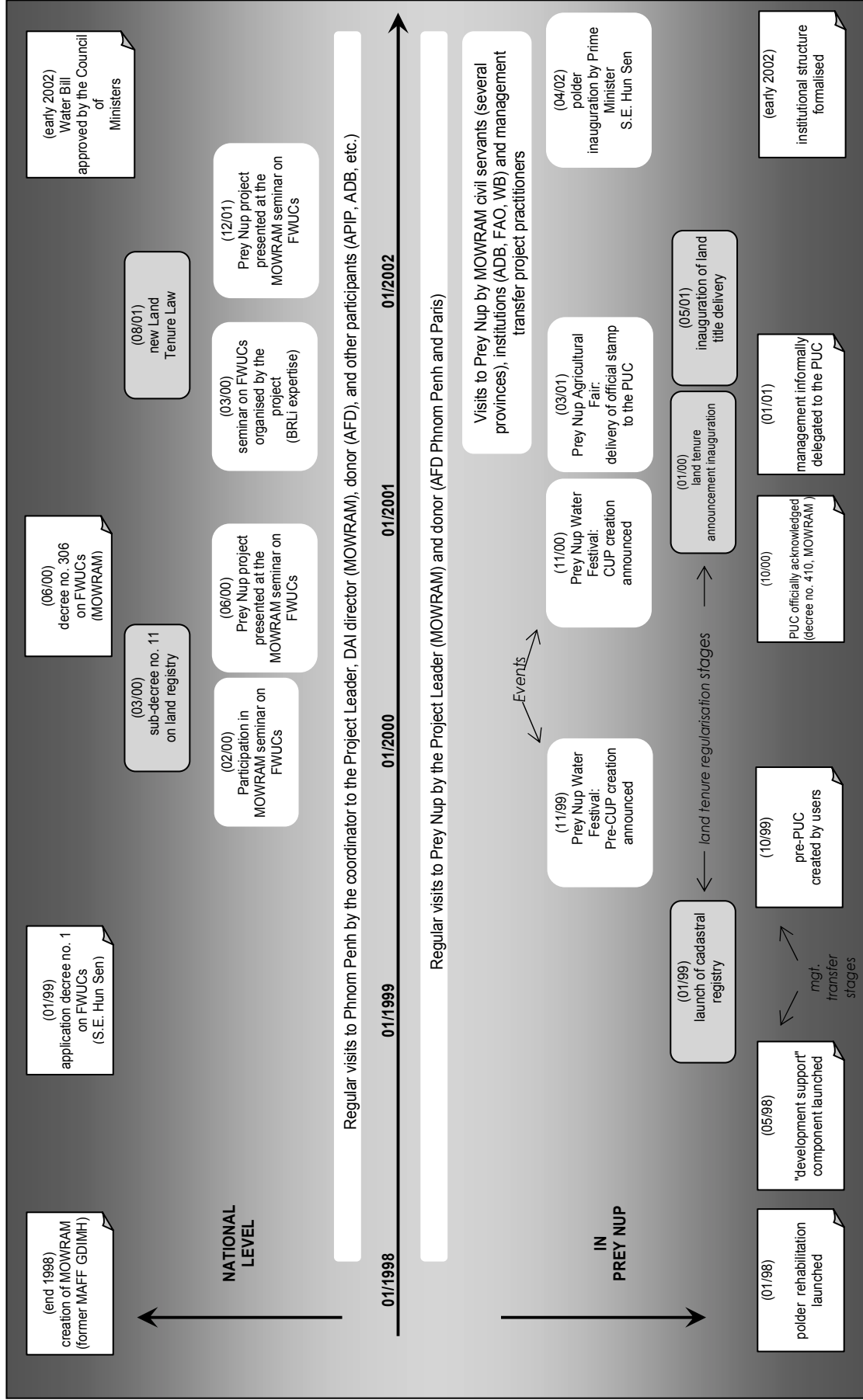
- Updating local authorities, the contracting authorities, and the donor regularly and frequently

The coordinator regularly called meetings to inform the district chief, governor, contracting authorities, and donor. These meetings were held in Prey Nup, Sihanoukville and Phnom Penh. The steering committee meetings, expertise missions, and financing negotiations were privileged occasions (but not the only occasions) to conduct field visits.

- Festive events and mobilising ceremonies

The project promoted festive, mobilising events for all stakeholders. They were, in particular, occasions for the politicians to appropriate the project’s accomplishments and reaffirm their support of the process: official declaration of the creation of the PUC during the Prey Nup water festival, hand over of the PUC’s official stamp to its chairman by the Minister of Water Resources during the Prey Nup agriculture fair. Presided over by the Minister of Regional Planning, the inaugural ceremonies for land policies and the deliverance of land titles played a similar role.

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- Participation in national workshops and welcoming outside visitors

Starting in June 2000, the project had several occasions to present the Prey Nup polder management transfer experience before a national and international public. The seminars were organised by the Ministry (Department of Irrigated Agriculture, DIA) or by the project (during expertise missions). Several meetings were organised in parallel in Prey Nup for MOWRAM civil servants (from other provinces), practitioners (Agrisud, Concern, HI's team in Chikreng, Prasac, GRET's team in Stung Chinit), donors (World Bank, Asian Development Bank), and international technical support experts (FAO, French Development Cooperation, etc.).

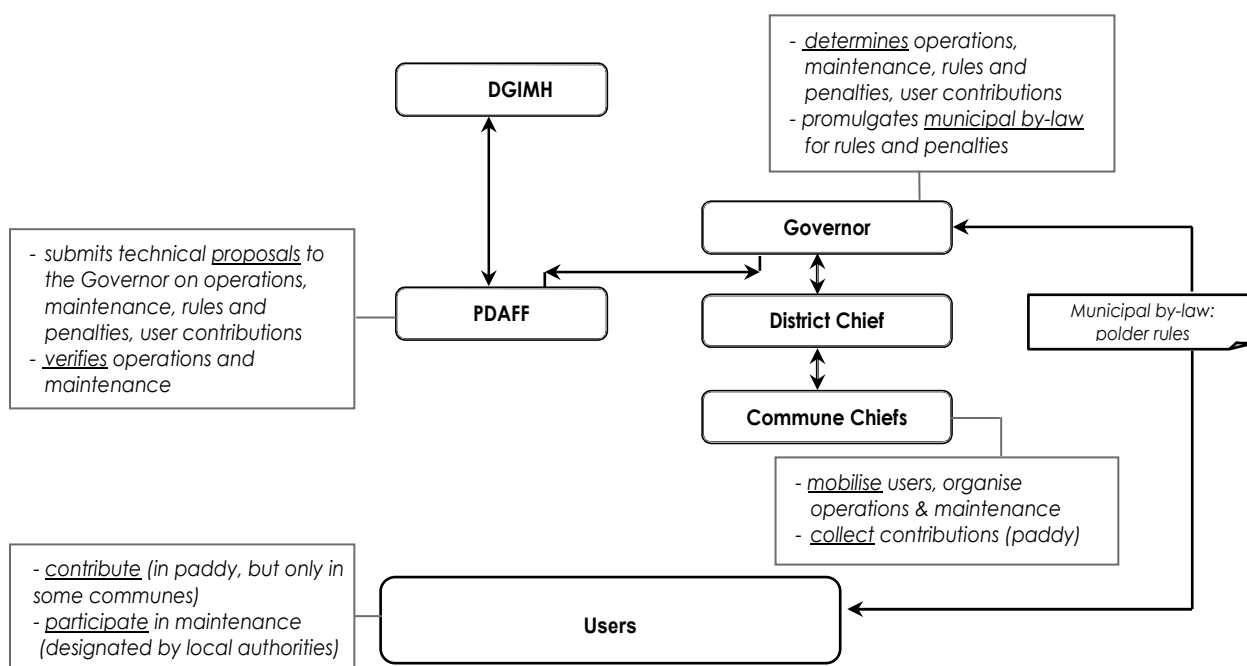
- **Management Transfer in a Legal Framework that Was in the Process of Being Defined: an Institutional Structure that Evolved Over Time**

The evolution of the institutional structure is an accurate reflection of the project's difficulty implementing the polder management transfer process in the changing, uncertain context of the elaboration of the national legal framework to regulate management transfer operations throughout the country.

Starting from existing structures, it was first a matter of setting up a transitional system that was operational, fit the legal framework in vigour, and coherent with the future legal framework under preparation, and then a matter of preparing the final structure once the new legal framework had been established.

Starting from Existing Structures

In 1998, before the project was initiated, polder management was ensured by the Department General of Irrigation, Meteorology and Hydrology (DGIMH, the technical department of the Ministry of Agriculture, Forestry and Fisheries (MAFF)) and the Sihanoukville local authorities. The DGIMH prepared proposals and ensured technical control of operations. Decisions were made by the Governor of the province. Commune chiefs were in charge of implementation, mobilising villagers if needed.



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Building "Temporary" Solutions

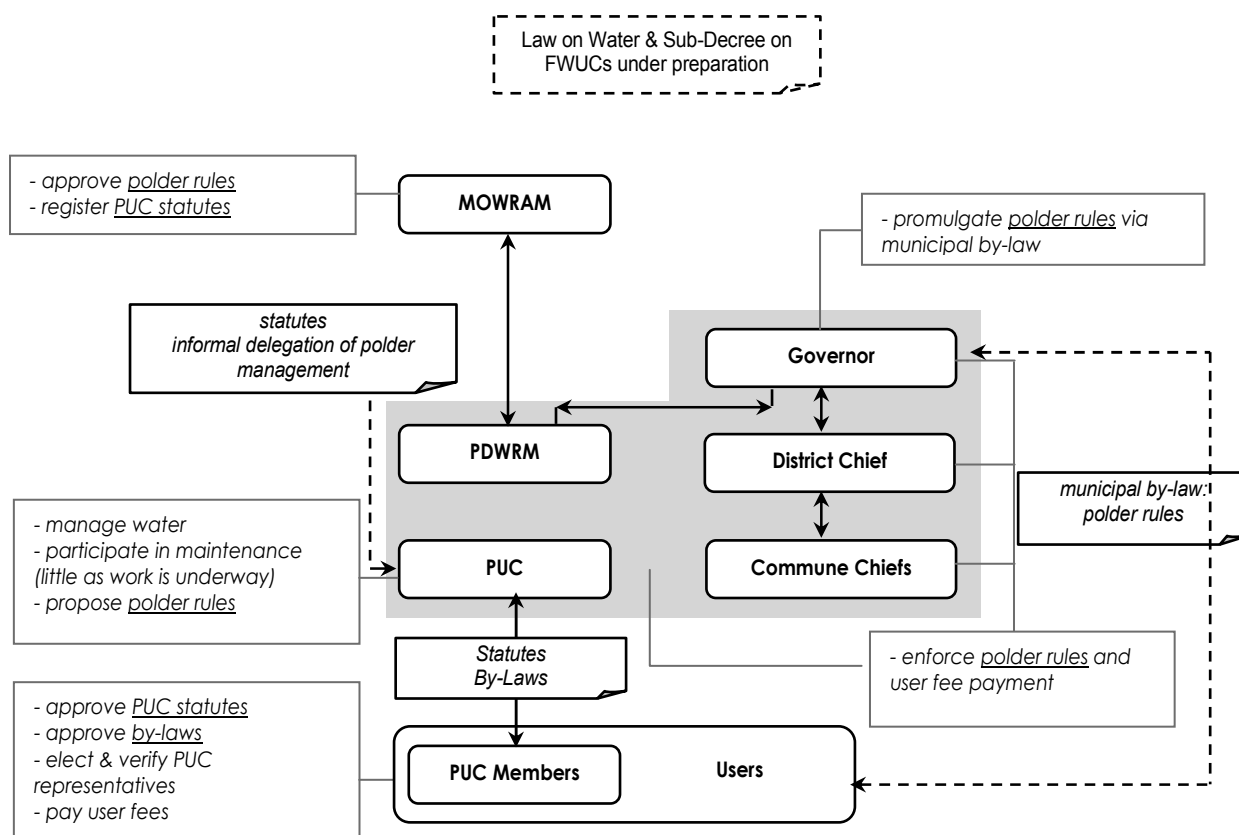
As early as May 2000, the PUC's statutes were approved by the ensemble of polder users. To begin operations, it needed to be legally acknowledged by its supervisory Ministry.

Application Decree no. 1 (January 1999) and Ministerial Decree no. 306 (June 2000) made up the legal framework on which MOWRAM based its legal acknowledgement of the PUC's statutes via Ministerial Decree no. 410. The PUC was thus the first FWUA registered by MOWRAM.

The national legal framework, however, was not yet sufficient to delegate polder management to the PUC. The PUC did not yet have legal status. Nor did it have the authority needed to impose the payment of user fees and respect of polder rules on (non-member) users. The terms under which management would be delegated to the PUC by MOWRAM had not been defined either: Who would do what? What would the limits to and conditions for the duties of the various parties be?

A provisional institutional structure was therefore "built" based on the mechanisms in effect and allowed the PUC to operate in 2001. The governor made official, for the province, the rules established by the PUC, thus making it mandatory to pay user fees. The district chief relayed this decision to the commune and village chiefs. De facto delegation of polder management was made official but not formal. The PUC could begin operating.

This transitional situation also made it possible to field test a large-scale management transfer operation. Would the PUC be able to manage the polders? Would the users agree to pay the user fees? Would the local authorities cooperate, and how? Etc. The observations made in Prey Nup thus fed reflections on the national legal framework being prepared.



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Preparing the Final Institutional Structure

At the same time, with the help of technical support funded by the World Bank and the Asian Development Bank, MOWRAM was preparing a Law on Water and a sub-decree pertaining to management transfer operations.

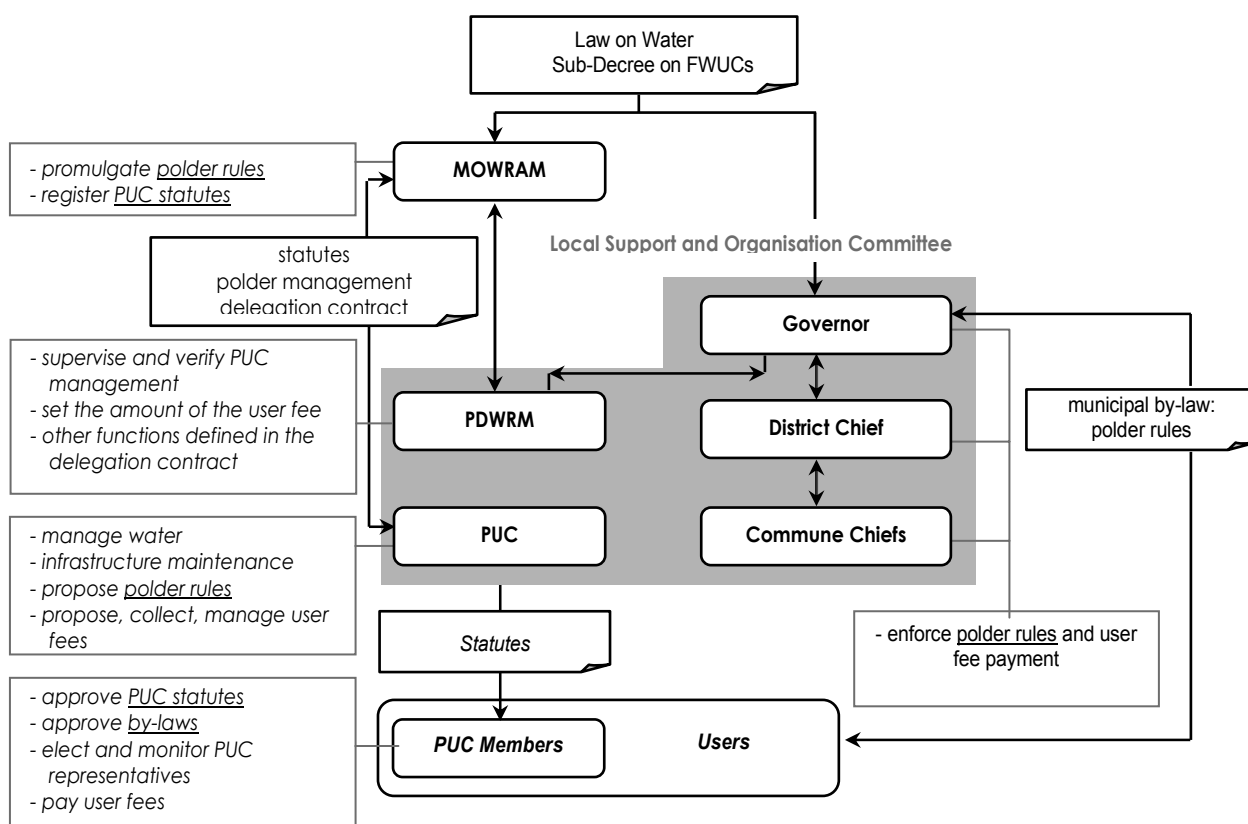
A priori, the *Law on Water* was supposed to provide FWUCs with legal identity, define the outlines of responsibility (and authority) transfers in direction of FWUCs, and specify the government authorities' role in these management transfers (MOWRAM and local authorities).

A sub-decree *applying specifically to FWUCs* would then describe in detail the transfer procedures and modalities.

In 2001, the project began to examine formalising delegation of management for the Prey Nup polders. Field experience highlighted the limitations of the system in place at the time: lack of definition of the services to be provided by the PUC led to confusion and discontent, not transferring authority to the PUC left it powerless to impose payment of the user fees on frauders, etc.

Specialised expertise in institution-building was mobilised (BRLi). Emphasis was placed on the need to provide for a certain number of distinct founding texts that set the rules of the game: a set of specifications, PUC statutes, PUC by-laws, a management delegation contract, etc. The schema proposed for Prey Nup was discussed with MOWRAM and its technical assistants. The project organised a seminar to extend the discussions to several of MOWRAM's Provincial Departments.

The targeted institutional structure would take the following form:



- **The Contributions of a Project that Became a “Showcase Project” for National Policy**

During the project's first two years, the physical rehabilitation of polders took up most of the attention of decision-makers and politicians. During this time, coordination and institution building was conducted in the shadows, in “experimental” mode.

Publicly presented during the national seminar organised by MOWRAM in June 2000, the partial results acquired between 1998 and 2000 (creation of a PUC with a membership of 6,000 user households, mobilisation of politicians around the notion of transfer, more than 6,000 plots recorded in the framework of the pilot Cambodia Cadastral Project (CCP), and solidarity loans extended to nearly 4,000 beneficiary households) drew the attention of politicians and donors.

The Government then apparently decided to promote the Prey Nup project's accomplishments to its constituents and the community of donors. Indeed, the Government then negotiated financing for several large irrigation scheme rehabilitation projects, usually conditioned by donors (AFD and ADB in particular) on management transfer operations. The Prey Nup project had numerous advantages to become a “showcase project” for the Government's policy: its scale, fields of action, geographic proximity to Phnom Penh, environmental policy, and results.

In October 2000, the PUC was the first FWUC officially acknowledged by MOWRAM's DIA. At first an “experimental project”, the Prey Nup project then became a “showcase project” of sorts for the Government's policy.

By agreeing to play the game (organising visits, participating in seminars, etc.), the practitioner was able to use this “showcase” lever to mobilise and involve government authorities. Thus, the problems encountered and successes in the polders when it came to management transfer were systematically submitted to the national organisations. For each problem, the joint search for a solution was thus, for the Prey Nup project, an occasion to contribute to the national reflections on irrigation scheme management transfer operations.

Often informal or “parallel” to the process underway locally in Prey Nup, these contributions to the national policy are of diverse types and occasionally vague. Thus, it would be pretentious - or even wrong - to attribute this or that specific element of the national policy to a contribution by the Prey Nup project. Nevertheless, it is possible to cite a few general contributions:

- The very existence of the PUC and the functions it had so far been able to fulfil (user fee collection, water management, etc.) proved that it was possible to create an autonomous and professional FWUC that represented and was at the service of users, under the authority of MOWRAM.
- The resistance offered by certain Government representatives (several village and commune chiefs, for example) because of the ambiguous information they received clearly showed the need for strong and explicit political commitment by government authorities to initiate and support management transfer operations.
- The difficulties encountered by the PUC members and the local authorities when it came to enforcing collective rules (including user fee payment) clearly highlighted the need to elaborate a legal framework that reinforced the PUC's authority.
- The ambiguities as to the respective responsibilities of the parties involved (managing water, enforcing rules, etc.) emphasised the need to clarify the terms of the management transfer among the various stakeholders involved, possibly through legal or contractual documents such as “specifications”, “management delegation contracts”, “service contracts”, etc.
- Finally, even though they were still insufficient, the generally positive results (water management, user fee collection, etc.) emphasised the interest to be found in a “participatory” method that took the time to include users in the elaboration of constitutional and collective rules.

The Conditions for “Success”: Strategic Steering of the Action, Above and Beyond the Initial Mandate

Although one must remain prudent as to the project's “success” because the process is still underway, results can undeniably be seen already.

This section aims to emphasise the factors that made these results possible (even if a fortunate set of circumstances also helped).

• **The Project's Strategic Steering**

Analysis of how the project was managed reveals the full importance of true “strategic steering” of the project. The following characteristics of project steering deserve to be emphasised in particular:

- Strong commitment by the practitioners to the project's “ultimate goals”: from the start, the project team looked beyond the goals formally set forth in the contract and anchored its intervention in a long-term perspective within a national environment under construction.
- Practitioners “going the extra mile”: by deciding to not limit themselves to their mandate alone, the practitioners were able to overcome blockages, anticipate financing needs, and finally allow the institution-building process to carry on uninterrupted. This commitment also earned the trust of the donor, contracting authorities, and the construction company.
- “Autonomy” in implementation options: by earning the trust of the donor and contracting authorities, the practitioner received, in return, a level of autonomy of action that favoured the adaptability required to support the institution-building process.
- Emphasis on “experimental” nature of the management transfer process: by getting the project's institutional partners and local stakeholders to acknowledge its “experimental” dimension, the practitioner gained flexibility for action and could (more or less) take the time to listen, react, and improvise while keeping on track.
- The “management transfer” component's position as primary project stake: the four other components were implemented so as to support the management transfer process, which allowed for better management of improvements in credibility.
- “Expanding the institutional and geographic fields of action” of the project: by calling and progressively including the government authorities, and the local, provincial and national technical departments, the practitioner created conditions that favoured institution building.

• **Practitioners Going the Extra Mile**

The practitioners (GRET and HI) and their teams took on roles that, in practice, went well beyond their respective contractual obligations.

The time devoted to advising the construction company, managing water during construction, designing rehabilitation for polders 5 & 6, preparing funding applications (phases 2 and 3), disseminating field experience (information meetings, formal and informal visits, receiving outside visitors, participating in national seminars, etc.), exchanging directly with stakeholders (both during and between missions), etc. contributed greatly to the results obtained.

This attitude is a reflection of both the intrinsic nature of the practitioners (NGOs) and the real commitment of the people working on the project (French and Cambodian teams).

A Few Examples of "Going the Extra Mile"

1998: flaws in rehabilitation design

In response, the practitioners organised a user consultation procedure and encouraged negotiations between the donor and the contracting authorities in order to make and finance the necessary corrections.

1998: absence of management mechanisms and transition financing

The practitioners created systems and opened arenas of consultation to share responsibilities, organise task coordination, and obtain financial resources.

2000: absence of mechanisms to compensate for land lost to dikes

The practitioner consulted the parties concerned and then elaborated several compensation options and proposed them to the steering committee. The solution adopted was pooling losses via partial village land consolidation.

2000: absence of a legal framework permitting the PUC to operate

The practitioner animated a process to build and negotiate, with government authorities, a provisional institutional framework that would allow the PUC to operate without mortgaging future evolutions. Simultaneously, the practitioner provided input for the reflections on the national legal framework.

2000–2001: the agricultural development of the polders hampered by construction delays

The practitioners called on the contracting authorities and sought solutions to incite the construction company to respect the deadlines: rehabilitation of polders 1 to 4 were scheduled to be complete in 2002.

2001: an unfavourable context for the first user fee collections

The practitioner expended considerable effort explaining the stakes to and convincing users, local authorities, technical departments, the Member of Parliament, religious authorities, political leaders, etc.

2001–2002: a "drought crisis" and "crisis of confidence"

The practitioner helped MOWRAM and the PUC organise an emergency irrigation campaign. The practitioner worked to progressively regain the support of government authorities, and the trust of the PUC's elected members, and re-establish contact with users.

2002: lack of a legal framework to resolve the problem of unpaid user fees

The practitioner called on the project's institutional partners to mobilise all available means of persuasion to make it through 2002, and feed national reflections around the Law on Water and the sub-decree relative to FWUCs.

• Understanding Among Practitioners that Went Beyond the Project's Institutional Structure

The institutional elaboration of the project involved three separate practitioners who were contractually tied to the contracting authorities (MOWRAM): the "Construction Company", the construction "Controller", and the practitioner in charge of development support under the direction of the "Coordinator". Here, the operation's overall coherency was in theory ensured by the contracting authorities as "project leader".

In practice, this separation of markets between "physical" work (construction) and "institutional" work (institution building) often led to jumbled deadlines, overlapping responsibilities or non-attributed responsibilities, and design or implementation inconsistencies prejudicial to the project's proper operation. When it was sometimes necessary to arbitrate between the "physical" and the "institutional" tasks, the short-term financial and political stakes often caused the scales to tip in favour of the

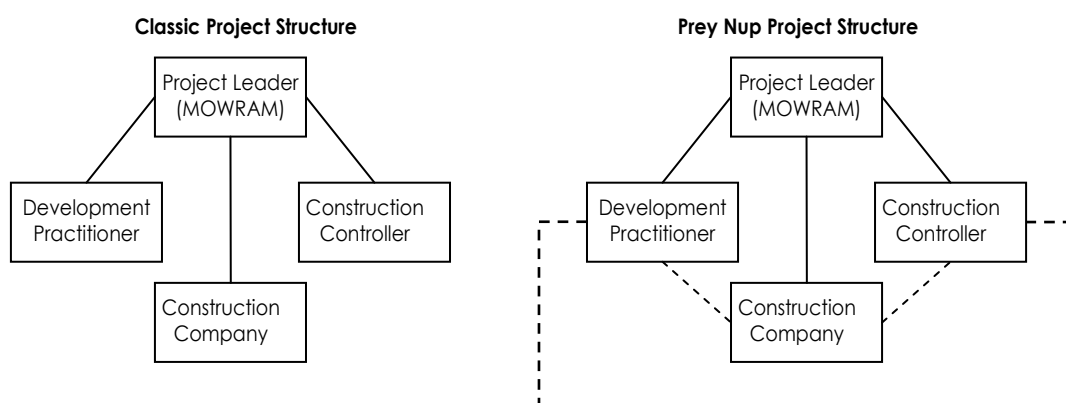
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construction company, to the detriment of the long-term institution-building process. Thus, the practitioner in charge of development support often found himself placed in the wrong.

In the Prey Nup project, several factors joined together to ensure overall coordination:

- From the start, an institutional relationship formalised by a “framework agreement” linked the construction controller (HI) and the practitioner in charge of development support (the GRET/HI consortium). The overall project was thus taken on as a whole by at least two out of three practitioners, who sought the best possible compromises between the “physical” and “institutional” requirements. The good personal relationship between the controller and the development support coordinator obviously favoured this.
- Technical gaps in the construction company's skills and the professional implication of the controller opened the door to an “informal agreement” between the construction company and the controller. In exchange for technical advice on construction, the construction company was willing to take into account the controller's recommendations concerning quality of work, technical choices, execution schedule, and even additional tasks such as water management.
- This “good attitude” by the construction company when it came to “institutional” work was equally strengthened by the fact that the development practitioner and the controller worked together to alert the donors and prepare fund-raising applications to finance additional construction.

The combination of a formal agreement (GRET/HI) and informal agreements between the field practitioners turned out to be relatively efficient “in the field” for ensuring day-to-day coordination. When the construction company ran into blockages, it needed to turn to the project leader for arbitration. When this happened, the close relationship between the controller and the development support coordinator contributed to increasing the weight of the “institutional” work in relation to the “physical” work.



• The Donor's Commitment for the Long Haul

Throughout the duration of the project, constant communication between the donor and the practitioners greatly favoured the proper operation of the project, conducted in a climate of trust and constructive cooperation.

- The technical support provided by the donor to the practitioner was on-going and appropriate.
- The donor's role as intermediary with government authorities and with the community of donors was decisive in transmitting a certain number of messages “from the field” to the highest levels of the Cambodian administration.

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- The donor's consistency and commitment when it came to financing the process undertaken (three financing agreements from 1998 to 2006) also ensured continuity in the work done to coordinate and support the process.

- **A Constructive Attitude by the Government Authorities and the Contracting Authorities**

For their own political and personal reasons, the project's institutional interlocutors generally adopted a constructive attitude and supported the management transfer process. This commitment contributed greatly to the project's success.

- The district chief and successive governors constantly supported the process, in particular starting in 1999. The decision to launch the first user fee collection was nevertheless difficult and politically risky, especially for the district chief. In a not yet stable legal framework, it was remarkable that the vice-governor defended the interest of and stakes behind user fee payment in front of villagers.
- The project leader's commitment, expertise, and seriousness - although limited by the weight other commitments in addition to project implementation - obviously played a decisive role. Under Secretary of State with MOWRAM, he provided a decisive relay within the government's decision-making bodies and the dominant party. His skills as a fund raiser made him attentive to suggestions by donors, and he knew how to convey them to his Minister.

- **Decisive Commitment by PUC Leaders**

From the time they were elected when the pre-association was created, the four polder chairmen heading the PUC showed remarkable perseverance and reliability - and did so in sometimes difficult conditions such as during the "drought crisis".

Their ability to dialogue with government representatives and their willingness to host visits by various officials contributed greatly to making the Prey Nup experience known nation-wide.

The quality of the PUC leaders was a decisive element in the process as it was elaborated, and in its accomplishments.

- **Favourable Timing**

The project was launched in 1998. The ministerial decree no. 306 was promulgated two years later in June 2000. At this time, the PUC was created by users and sought legal acknowledgement to be able to begin operations.

Thus, the project had a little over a year to reflect collectively on the issue, without constraints imposed "from above". Preparing the statutes was an occasion to dialogue with the Department of Irrigated Agriculture (DIA) which was at the time in charge of preparing decree no. 306. The official registration of the PUC by MOWRAM in October 2000, brought the PUC into line with the collective reflections being conducted nationally.

- **An Atypical Irrigation Scheme**

Polders are not, strictly speaking, irrigation schemes. The technicalities of water management are radically different (there is no water rotation, for example). However, the management transfer issues are roughly the same. From this point of view, it is strange to note that the PUC was the first FWUC to be officially registered by MOWRAM.

The "atypical" nature of polders occasionally gave the project team more room for manoeuvre vis-à-vis the general orientations set in decree no. 306 ("the polders are special cases"), thus making it possible to test original modalities and/or bring up issues that are less visible with classic irrigation schemes.

An Example of a Problem Highlighted: the Use of Public Authority to Impose Scheme Rules

In theory, one can make obtaining water services in a irrigation scheme conditional on FWUC membership, respect of scheme rules, and payment of the user fee. Built on this approach, Decree no. 306 provides for, at the most, the collaboration of local authorities to enforce the rules of the irrigation user community.

Yet, with polders, it is impossible to withdraw the benefits of polder management from users who refuse to obey the polder rules, and notably those who refuse to pay user fees. In this case, there is no option other than calling on public authority. The tricky question of forcing fraudsters to obey the rules was thus clearly evoked.

It is well known that "fraud" is a recurrent problem for irrigation schemes, one that irrigation users' associations have difficulty handling. The solutions that are being tested in Prey Nup will help advance reflections on this touchy subject that is almost certain to be an issue for classic irrigation schemes.

**If We Could Do it Over: Possible Project Improvements
Upstream and Downstream**

This "experimental" project had a certain number of advantages that favoured the creation of exchanges between field experience and the elaboration of a national policy framework. The way in which the project was steered contributed to creating these favourable conditions and made it possible benefit from them.

With hindsight, if we were to conduct an experimental project of this type again, it would be preferable to strengthen the upstream and downstream aspects of such project.⁸

● **Tools to Read and Understand Social Transformation Processes**

The effectiveness of water users' associations lies in the "social capital" that is progressively built from the social norms and rules in vigour. Their emergence and continued existence require them to be part of the local and national political landscape. Their sustainability relies on an institutional and contractual structure that is suited to the practices in the country.

In the case of Prey Nup, the initial budgetary and deadline constraints imposed a rhythm that did not allow the practitioner to analyse in depth the detailed workings of local society and the transformation processes underway. The project team, of course, sought to combine diverse mechanisms to fine tune its understanding of the milieu⁹ but, generally speaking, one must admit that the project was often conducted "instinctively" and without looking beyond the immediate problems.

On several occasions, the practitioner was led to make strategic choices without the tools to read and analyse social transformation processes that would have given him true, objective assessments of the various options available.

If one wishes to avoid these sources of error, it would be useful to provide for, upstream of the project (that is to say before the project is launched), the time and means to conduct prior analyses of local practices, social norms and behaviours, the institutional environment, and the political context. The social and institutional analysis evoked here would not aim to justify or design an intervention project but

⁸ The recommendations formulated in this section apply more specifically to "experimental projects in co-building a local institution and a legal and institutional framework". Sections III.3 and III.4 expand upon a certain number of recommendations for "non-experimental" projects implemented in the framework of a national management transfer policy.

⁹ An expert diagnostic during the hiring process, an internship by a student with CNEARC, an expertise visit by an anthropologist specialised in management transfers, a mid-term assessment, etc.

rather lead to a framework for social interpretation and tools to analyse and understand collective action mechanisms and systems of authority that could be used by the practitioner while implementing the project and to support the elaboration of rules.

This would be a considerable advantage for field practitioners who, like craftsmen, would thus have a larger range of analysis and comprehension tools to successfully complete their social construction.

The Tools of a Craftsman

As is very often the case in operations of this type, when they arrive in the field, technical assistants do not master the language and do not know the culture where they are going to intervene. In the case of Prey Nup, the technical assistants were generalists who had no experience with management transfer operations.

Of course, the team called on specialised expertise but these support missions were too short for in-depth analysis of the workings of Cambodian society. There was therefore a strong risk of importing operational schemas and modes that were "out of touch" with the country's practices and institutional frameworks. In any case, experts indicate the "goal" and not the path towards the goal. The path must be found by the stakeholders involved in the process.

In theory, the participatory approach adopted by the project made it possible to avoid design errors. However, in the case of a local social transformation project launched on the initiative of Ministries in Phnom Penh, the "participation" was necessarily relative and the orientations set by the practitioner were often decisive.

In order to avoid falling into the traps of our pre-conceived ideas, we decided to adopt an iterative approach: progressively - brick by brick and step by step - building the project, constantly endeavouring to obtain and analyse feedback from the stakeholders concerned. In short, true work of a craftsman. The difficulty involved in doing so resides in the dual need to anticipate possible reactions by the society and to take into account the real evolutions in the field. Listening to and observing the reactions of various stakeholders to the proposals formulated were our main guideposts to "navigate" and support the process.

The question was, however, to know if we had the right keys to anticipate, listen to, and observe the evolutions underway. The project team would undoubtedly have found anthropological, political, and institutional studies useful in better grasping the milieu and adjusting its proposals. Tools to read and observe local practices would probably have made it possible to lift a certain number of "curtains" that inevitably limited the practitioner's field of vision.

● **Formalised Bridges between Field Experience and Nation-wide Reflection**

The ways in which the project favoured exchanges between field experience and national-level reflections were described above.

Often informal or provoked by circumstances, these exchanges were also highly personalised¹⁰ and it was not certain that the questions raised by the project team would be effectively transmitted to the decision-makers in charge of elaborating laws and regulations.

During the first four years of the project, the practitioner needed to spend considerable time favouring this upstream transmission of field experience by welcoming outside visitors, preparing papers for seminars, more or less formally meeting interlocutors working in government ministries, etc. This represented a considerable additional workload.

A French Development Cooperation technical advisor placed at the disposition of MOWRAM in 2001 could have played this role but he had neither the necessary means nor the power to mobilise forces. In

¹⁰ with the exception of the seminars

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2002, the donor, aware of the project's pilot dimension, agreed to mobilise the means to partially fund the "analysis and documentation" and "dissemination" of the Prey Nup experience.

In future experimental projects of this type, it would be preferable to promote or enter arenas for reflection and analysis of experiences in the field. This would require finding the means to do so and planning for the necessary procedures. Obviously, it is crucial that these means be available at the appropriate time.

Necessary Government Commitment: Towards Shared Management

The need for Government “withdrawal” is often invoked to justify transferring management to users. Indeed, one of the goals sought is in fact to reduce public expenditure linked to recurrent polder management/maintenance expenses.

Strongly suggested by the community of donors, this objective is sometimes interpreted very strictly and leads to a view of the Government's role as limited to some kind of “monitoring” of the transferred irrigation schemes, the management of which would be better accomplished by users' organisations.

The “management transfer” operation itself - a true “handing over of power” - is sometimes under-appreciated and seen as a formality of sorts that should not present any major difficulties.

Experience, however, clearly shows that this is a real reform that requires “strong Government commitment to its withdrawal”.

Local Organisations Managing a Public Good Alone Do Not Have Sufficient Legitimacy and Authority

• **The Supposed Foundations of PUC Governance**

Here, “governance” means the PUC's ability to enforce polder rules among users.

One often has a tendency to think that this governance is automatically acquired.

- The fact that the rules are elaborated by, or in close collaboration with, users should result in users respecting these rules. Elaborated by the villagers in order to ensure that the majority can benefit from a common good or service, the rules should be respected under the influence of what is habitually called “peer pressure”.
- There are, of course, fraudsters; and these rules will not be respected by all without an “authority” capable of punishing infractions. To be effective, it is obviously crucial that the legitimacy of this authority to inflict punishments is acknowledged by the majority of users. The democratic election of PUC officers by users, and the direct accountability of these officers to their electors are supposed to provide and maintain this legitimacy.

Thus, the shared awareness of a common interest, the definition of rules by users, the democratic election of the authorities in charge of enforcing them, and the direct accountability of PUC officers to their electors are four strong assumptions that are supposed to found the PUC's governance through a dual interplay of “peer pressure” and “authority”.

- **The Limits to PUC Governance**

In the case of the Prey Nup polders, PUC governance seems at first glance quite real, as indicated by, for example, the good user fee recovery rate obtained in its first year and the improvement of this rate in the third year when the water service improved. Yet, closer examination leads one to nuance this statement.

Firstly, the polder infrastructures do not make it possible to ensure that all users receive the service they would like. One reason is the management of the water-space over more than 2,000 ha of paddy in a capricious landscape. In addition, the interests of fishermen sometimes compete with those of farmers. Thus, the definition of the common service was the result of a consensus in which, inevitably, some were less well served than others, or even “cheated”. The notion of “common interest” was therefore not shared by all equally.

Secondly, “peer pressure” does not always operate as one would wish. For example, payment of user fees is a crucial rule which is supposed to ensure the quality and sustainability of water management and protection against salt water. The vast majority of users is aware of this and approved the rules determining the yearly fee. Yet, the first two user fee collections showed that bad payers - who are often “powerful” - do not always get bad press in the villages. In addition, very few people dared openly demand that they pay their fees. On the contrary, the villagers were relatively easily tempted to follow the example of the fraudsters and “wait” to pay their fees. This reveals a sort of “negative peer pressure” in action. This negative peer pressure is the result of not only a feeling of injustice (“it’s not fair that I have to pay if he doesn’t pay...”) but also an ensemble of values that lead to the legitimisation of individual interests (“after all, I could just not pay...”).

How “Negative Peer Pressure” Operates

At the risk of over-simplifying things or being greatly mistaken, we propose the following interpretation. The “powerful”—whether because of their wealth, political status, or some other element - seem to hold double legitimacy in the eyes of villagers: a legitimacy due to success, and one due to their clientele network (through the favours or services they can provide). It is therefore easy to understand how going against a “powerful” person can be seen as being out of place. It is also a Cambodian tradition to always make sure you do not make your interlocutor “loose face”. It is therefore difficult, if not impossible, to point out the fraudsters. In such conditions—individual interests trampling the common interest - why shouldn’t one follow the “powerful” in not paying?

The legitimacy accorded to the PUC officers by the democratic elections thus interferes with other forms of legitimacy - those of the “powerful” - that are not readily visible to uninformed observers (such as ourselves). One can observe that the officers themselves, although invested with authority from the polls, take multiple precautions and often hesitate to move against such fraudsters. This is probably one of the limits of PUC’s governance.

Thus, it is not surprising that the elected PUC officers had to call on Government authority on several occasions to shore up their authority over their electors.

In addition, in the Prey Nup polders, this appeal to Government authority was all the more necessary and indispensable because PUC membership is optional. Users that decide not to join the PUC therefore have no obligations to the elected PUC officers. This is a fundamental problem in the current statutes which do not make it possible to make membership mandatory.

In short, PUC governance is indeed real: the majority of users, now PUC members, respect the fundamental rules. This governance reaches its limits, however, when it seeks to enforce, possibly through sanctions, rules among the “powerful” or “non-member” users. Without a higher authority able to support the authority of PUC officers, there is a considerable risk of entering a downwards spiral of fraud.

The Necessity of “Strong Commitment by Government”

As mentioned above, the concept of “Government withdrawal” lends confusion. Experience has proven that management transfer operations require, on the contrary, a “strong commitment” by government authorities.

- **A Two-Phase Commitment**

Three major modalities for Government support can be identified: governance relay, financial support, and technical support. For each of these types of support, we feel it is important to clearly differentiate between two stages in the commitment expected of Government.

- To start with, there must be a “firm commitment” to promoting and accompanying the management transfer process. True social investment, management transfers require considerable political efforts by Government that are concretised by institutional reforms and can be costly.
- Afterwards, Government needs to provide “other support” to FWUCs once the transfer is complete and formal. If the transfer operation is successful and formalised, the support requested is then more discrete and less costly.

- **An Authority Relay**

We have seen the pressing need for public powers to relay the authority of the PUC in order to strengthen its authority and ability to enforce rules. The “weak”, even hostile, stances adopted by certain commune and village leaders (who were sometimes among the “powerful”) during the first two user fee collections clearly revealed the risk involved in not guaranteeing the PUC clear, explicit, known, and unflinching support of Government and its representatives.

In the current context of experimenting and elaborating a national legal framework for management transfers, this support demands strong political commitment by government authorities; this commitment is not limited to statements of principle and must be concretised in actions (the Governor’s and MOWRAM’s interventions are part of this logic).

In time, this Government support for the PUC’s authority should be inscribed in Law, which should specify the areas of public authority transferred to the PUC as well as the areas in which cooperation by government representatives is mandatory.

- **Financial Support**

Financial support from the Government was also needed. This was obviously the case for the PUC creation phase and during its “learning period”. Accordingly, application decree no. 1 quite rightly provided for digressive subsidisation mechanisms that it was nevertheless be important to make real and operational.

Calculations also show that polder renewal would probably be too expensive to finance out of user fees alone. Government support would therefore probably be needed. Finally, the possibilities of exceptional government subsidies in the case of natural disasters (*i.e.* climatic conditions that exceed the infrastructures’ water management capacity) seem inevitable to ensure the sustainability of the PUC.

- **Technical Support**

Experience has shown that PUCs also need technical support from the Government. Again, this was obvious during the PUC creation phase and its learning period so that the PUC could obtain the skills it needs to manage the services it would provide.

One can also easily understand that large infrastructure maintenance may occasionally require specific technical support during operations. Government technical departments can provide this support.

In short, the PUC needs a real "commitment by Government" in order to solidify its governance and provide the services expected of it. By committing to strengthening PUC governance, the Government guarantees that management and maintenance of the infrastructures will be financed by users (user fees) and equally reduces government spending. By committing to providing the PUC with technical and financial support, the Government guarantees the sustainability of the infrastructures and the quality of the service provided. The frequently evoked expression "Government withdrawal" lends confusion and it would be better to speak of a "different involvement by Government". Indeed, this is a real reform and, by implementing this reform, the Government reinforces its own legitimacy and credibility, and contributes to generating more wealth.

Elaborating Regulations in an Extended Institutional Framework

- **Management Shared Between Users and Government**

Experience has shown that it is vital to include Government representatives at some point in the definition of polder rules. Indeed, the emergence of a new institution such as the PUC in the politico-institutional landscape upsets the balance of local power and can generate numerous stumbling blocks for the creation and operation of the PUC. This is obviously all the more true in the case of a PUC made up of more than 12,000 members, more than 10 communes, and destined to manage a budget equal to the Province's operating budget!

In addition, as mentioned above, strong Government support for the PUC is vital in technical and financial fields and as concerns governance. Thus, the orientation taken is indeed towards "shared management" of polders in which the missions of "Government", the "PUC", and the "users" are complementary and mutually reinforce each other. It is therefore desirable to include all involved partners in defining the rules and the missions of all parties.

- **The Users' and PUC's Missions**

The importance of including "users" as fully as possible in drafting PUC statutes and rules has already been discussed. The users' primary mission is obviously to obey the rules.

The "PUC" must be understood to refer to two groups:

- the users who are PUC members (remember that all users have the right to become members)
- the elected PUC officers.

In addition to obeying the rules, PUC members have two other crucial missions: electing and monitoring PUC officers and formulating proposals to improve the services provided by the PUC.

- **The Government Representatives' Missions**

Including "Government" representatives in drafting the rules that will govern polder management is often – wrongly - neglected. Here, one must take into account several levels of government representation:

- the technical departments: the MOWRAM provincial office as well as that of MAFF, and the Land Registry
- the local (nominated) authorities: the Governor, the District Chief, the commune chiefs (elected since February 2002), and village chiefs
- the (elected) territorial authorities: communal councils (elected since February 2002)

The main technical department concerned is that of the supervisory Ministry, *i.e.* MOWRAM. In the case of the Prey Nup project, the minimal involvement of MOWRAM's Provincial Office in drafting the rules was offset by a strong involvement of the project head and the Minister himself. Experience has shown that other technical departments should be involved in institution building: the Provincial Agriculture Office (to monitor yields on cultivated lands, for example), the Provincial Department of Cadastre and Geography (to keep updated land registers and provide them to the PUC, for example). These departments' missions are mainly technical. Their public legitimacy makes it possible to remove the PUC from any leanings towards partiality.

Public authorities have, above all, police and public peace missions. Experience has shown the importance of including the Governor, and district, commune and village chiefs in the definition of the rules that they will be asked to enforce.

The commune is a recent territorial authority in Cambodia, and the first elections were held in February 2002. It is probable that their prerogatives will be extended to territorial development and management within the commune, and their ability to raise taxes is already planned. It will therefore be necessary to clearly define the functions of the various entities in order to avoid competing legitimacy or legal confusion.

Thus, both to avoid blockages and guarantee real and sustainable polder management by the PUC, envisaging, from the start, the "management transfer" as the construction of "shared management" by Government and users is recommended. This implies organising the drafting of the "shared management" rules within an institutional framework that includes the all stakeholders concerned.

A Few Suggestions for the Legal Framework in Cambodia

If we are correct, we can infer a certain number of general recommendations regarding the elaboration of the legal framework (Law on Water, sub-decrees, decrees) under construction that will govern transferring management to users.

The legal framework should initially endeavour to create the minimal vital conditions required to launch management transfer operations. The sub-decrees and specific application decrees would benefit from being sufficiently open and flexible to allow them to adapt to any necessary changes that appear during the actual implementation of management transfer operations.

A certain number of principles could already be set down in a Law on Water.

- **The Legal Status Granted to the FWUCs Recorded by MOWRAM**

Without legal status, a FWUC does not really exist as an institution and cannot therefore act as one: sign contracts, go to court, etc. Today, for example, the lack of legal status is one of the reasons¹¹ why the PUC is not legally able to bring poor payers before the courts.

The Law should explicitly give legal status to FWUCs that are registered with MOWRAM¹².

- **The Possibility of Transferring Management/Maintenance to FWUCs**

The Law should explicitly state that it allows MOWRAM to transfer all or part of the management/maintenance of irrigation schemes to duly registered FWUCs.

- **Government Commitment to Supporting the Management Transfer Processes it Initiates**

The lack of institutional and political consensus is probably the main hamper to the Government's implication in management transfer operations. Application Decree no. 1 is of course a reference but it does not have sufficient force of law to make certain announced policy orientations such as, for example, Government financial aid to FWUCs during the transfer phase operational. Faced with the real risk of the process being interrupted, many transfer stakeholders adopt a prudent and defensive attitude even though the transfer phase would require that they adopt a voluntarist and constructive attitude.

Confirmation in Law of the Government's will to support the management transfer processes it initiates financially and institutionally over time would encourage the users, technical departments, local authorities, and ministries concerned, as well as donors.

- **The Obligation to Cooperate of the Various Government Representatives**

Today, the representatives of the government authorities cooperate out of good will, political commitment, or personal motivation. Thus, for example, the commune and district chiefs hesitate to support the PUC without a legal "obligation" and "coverage".

The public offices most specifically concerned are the technical Ministries and their provincial departments (MOWRAM, MAFF, the Land Registry, taxes), the Ministry of Economy and Finances, the Ministry of the Interior and its provincial representatives (Governor, District Chiefs, Commune Chiefs, Village Chiefs), and the emerging territorial authorities (communal councils).

The Law could explicitly state that these Government representatives are required to cooperate with the legally created FWUCs acknowledged by MOWRAM.

The Ministries concerned by these obligations to cooperate should furthermore be given the means and organisation they need to take on their new responsibilities. Here, we refer in particular to the human and financial means needed for the technical or financial support provided to FWUCs.

- **The Obligation to Make Explicit and Formalise Missions and Duties**

In the absence of explicit and formalised definitions, the duties of the partners involved remain fuzzy and lead to confusions and disputes that harm all. Thus, for example, the existence of a set of specifications for the Prey Nup polders would have been useful in understanding and explaining the flooding and drought in 2001. A contract "delegating water management" to the PUC would have made it possible to plan for and clarify the necessary role of support to be played by the Provincial MOWRAM Office.

¹¹ the other reason is the absence of legal formalisation of the transfer of authority necessary to impose the payment of the user fee

¹² In March 2002, this clause was included in Article 18 of the MOWRAM draft Law on Water.

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The Law could mention an obligation for the competent Ministries to make explicit and formalise the responsibilities and duties of the partners involved in management transfer operations.

- For each irrigation system, a set of "specifications" should be written and signed. They should specify their limitations and composition, the development objectives sought, the service they are able to provide users, the general maintenance and operational rules to obey, the modalities and rules concerning financing, and the possibilities of transferring management/maintenance to a FWUC.
- The relationships between MOWRAM and FWUCs should be formalised in "management delegation contracts" or even in "transfer contracts". These contracts should set forth the rights, duties, and responsibilities of both parties.
- "Specific cooperation contracts" between FWUCs and technical departments (such as the land registry, for example) could be envisaged.
- Finally, a "project contract" between the Government and users benefiting from the rehabilitation could be envisaged (cf. infra).
- **The Obligation to Pay User Fees**

Experience revealed the extent to which the prickly question of user fees weakens the process. Devouring time and energy, generating conflicts and frustrations, the yearly user fee collection costs a great deal of both "money" and "trust". Feed exclusively by user fee collections, the FWUC's accounts run the risk of not balancing. This directly impacts the quality of management and maintenance operations. The inability to punish fraudsters will inevitably generate a downwards spiral of fraud that will lead to the failure of the management transfer process.

The examination of the low user fee recovery rates for irrigation schemes shows that this analysis - which is especially valid for the Prey Nup polders where it is impossible to withdraw the benefits of the service from poor payers - also applies concretely to all irrigation schemes.

A State "governance relay" is indispensable if one wants to make management transfers sustainable. To do so, the Law should explicitly mention the legal obligation for all users of a rehabilitated irrigation scheme to pay user fees. It should also make it legally possible to delegate the financial management and collection of user fees to FWUCs that have been duly registered by MOWRAM.

The question remaining to be answered by jurists is how to make user fee payment mandatory for the users of irrigation schemes. For example, should this obligation be linked to land titles? Should the user fee be assimilated with a simple "land tax" that would be turned over to the PUC?

In March 2002, reflections in Prey Nup led to the following proposal:

(1) The Law should explicitly state that users are obliged to pay a user fee for the management/maintenance service provided in the irrigated perimeters rehabilitated with public funds.

(2) The Law should make it mandatory that MOWRAM draft "specifications" for all irrigated perimeters rehabilitated with a financial contribution from Government. The "specifications" should explicitly state that the users of an irrigated perimeter are obliged to pay a user fee for the management/maintenance services. They should lay down the principals behind the definition and use of the user fees. They should provide for the possibility of transferring management/maintenance of the perimeter to a FWUC. This transfer should include user fee collection and financial management.

(3) The "specifications" should be promulgated by ministerial decree (prakas) by MOWRAM.

(4) The "specifications" should be included in the appendices of the "management delegation contract" signed with the FWUC.

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(5) The obligation to pay the user fee to the FWUC should be promulgated by municipal decree (deyka).

A legal framework that confirms and provides the outlines of the Government's commitment to a policy of "shared management" of irrigation schemes is indispensable. This framework should affirm a certain number of basic principles. It would also benefit from being sufficiently flexible so as to make it possible to analyse and take into account the management transfer experiences from several areas of the country. Including field practitioners (technical departments, emerging users' associations, NGOs, etc.) in the elaboration of the application decrees and sub-decrees presents three advantages: (1) ensuring that the diversity of situations is taken into account when the texts are written, (2) communicating the Government's commitment to users, and (3) expanding the social base of the reform underway. Here, we refer to real reflection on concrete cases which would be headed by MOWRAM, with or without the aid of technical support. This is a very different process from that of validation seminars or training sessions (which would nevertheless be useful after the decree and sub-decree drafting process).

Building Institutions: Methodology Considerations

Analysis of the Prey Nup experience suggests a certain number of methodological principles that we feel it is important to keep in mind when implementing institution-building support projects conducted in the framework of management transfer operations.

In this section, we will examine three levels of intervention successively: (1) supporting FWUC emergence; (2) accompanying the “institution building” incited and required by management transfer; and (3) the dialogue to be established between local realities and the national legal framework. This section will conclude with more specific reflections on the strategic position to be adopted by the practitioner in relation to the institution-building process underway.

Allow Users to Elaborate their Rules: “Grassroots” Work

Here, we are interested in the emergence of a “Farmer Water Users Community” (FWUC), the keystone in delegating the management of rehabilitated irrigated perimeters.

In the case of management transfer policies, the users' organisations rarely come from spontaneous grassroots initiatives and the “demand for an organisation” often grows out of policy decisions outside the perimeter users' universe. Thus, the difficulty lies in creating conditions that favour the emergence of these organisations.

- **Ensure that All Perimeter Users Participate**

It is clear that any stakeholder penalised by the rehabilitation process and/or the transfer to come will oppose it in one way or another sooner or later. Accordingly, it is best to include such stakeholders in the elaboration of the project as early as possible. A primary consideration is therefore how to involve all perimeter users in the discussions on the process as soon as possible. “Users” are defined as any person who, in one way or another, exploits or will exploit the perimeter.

It is sometimes good to state the obvious: the first thing to be done is clearly “delimit” the irrigated perimeter in question. Using maps or aerial photographs is practical but not vital. In any case, it is crucial to compare them, in the company of the perimeter users, to field observations.

In Prey Nup, rough maps were drawn from aerial photographs and then compared to the land by the project team which thus visually and toponymically “appropriated” the polders.

It is then recommended that one “identify” every user individually and by name. Painstaking but necessary, this will be very useful afterwards because it will make it possible to visualise the spatial and administrative distribution of users, directly call each user to participate in the process, and prepare the organisation of collective reflections. One can imagine diverse user identification mechanisms depending on the situation.

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In Prey Nup, we tackled this in two phases. First, we elaborated and then validated (with users) nominative lists of "user land owners" in the polders. A little later, we established (with villagers) nominative lists of "non-owner users".

Once users have been identified, they must be "mobilised" around the management transfer concept and/or process. This initial mobilisation is important because it conditions the rest of the process, depending on how the individual users will individually feel concerned, interested, and involved. The "mobilising lines" can be of diverse natures.

In Prey Nup, the project team initially relied on three successive mobilising lines: land tenure, pirogue circulation, and the re-design of the rehabilitation.

Finally, if this "mobilisation" is to be followed by real "participation" by users in the creation of "their organisation", we feel that it is particularly important to take two conditions into account afterwards: (1) user appropriation of the stakes behind institution building, and (2) the credibility of the Government's commitment to the transfer it proposes.

● **Favouring the Appropriation by Users of the Stakes Behind Institution Building**

One discusses and gets involved in a process better and more willingly if one understands and accepts the stakes involved. This is why it is important to spend time with users discussing and "clarifying" the stakes: the terms of the management transfer proposed by the Government (for ex., rehabilitating infrastructures in exchange for taking charge of management and maintenance, etc.), what the management transfer implies (for ex., creating and keeping alive a users' organisation, etc.), the benefits that users can hope to obtain (for ex., rehabilitated infrastructures, better water management, potential increases in yields and incomes, etc.), the new obligations for users (for ex., regularly paying a user fee, participation in the organisation, respecting the rules set by the organisation, etc.). This step is crucial and must be seen as a social investment for the continuation of the process. One must take the time to discuss matters, visit other concrete experiments, invite representatives of existing FWUCs, etc.

When the Prey Nup project was launched, there were no operational references in the country; this made it difficult for users to understand the stakes behind the transfer. In these conditions, the presentations and explanations provided by the project coordinators in the villages were probably not enough to generate real discussion and the users went into the process "with their eyes shut" to some extent.

● **Make Credible the Government's Commitment to the Transfer it Proposes**

Understanding the stakes is one thing, getting involved in a long-term organisational process is another. In an institutional environment marked by a socialist past, rampant corruption in government offices, and the political uncertainties at that time, the users were not ready to commit lightly to a process of collective organisation. Thus, it was important that the Government clearly affirm its political determination to support the emergence of a FWUC which would be called on to manage the hydraulic infrastructures rehabilitated. The Government's affirmation of its commitment must be confirmed and relayed by all Government representatives in the region (MOWRAM, technical departments, governors, district chiefs, etc.). This stage is crucial for the credibility of the process and the legitimacy of the future elected FWUC officers.

In Prey Nup, this "official communication to users and local authorities" stage of the transfer process was not conducted by Government representatives but by agents of the practitioner when the intervention was launched. The ambiguous attitude of village and commune chiefs during the first user fee collection was in part explained by the lack of official information to village chiefs concerning the Government's political will to transfer polders to the PUC.

- **Organising Collective Reflection: Participation by All and with Low Transaction Costs**

Organising collective reflection aims to ensure the active "participation" of the largest possible number of clearly identified users in defining collective rules.

To ensure the success of this collective exercise, it is useful to distinguish between the functions of information, reflection, and decision. Quasi-individualised user information is preferable when it comes to ensuring good comprehension of the stakes. It is obviously desirable, but rarely possible, that all users be able to participate in formulating proposals. It is, however, vital that all users have full powers of decision, specifically the ability to approve, amend, and/or refuse proposals. The "choice of information/reflection/decision arenas" must above all allow for communication-in close proximity-between the project's agents and users, favour discussion among users, and guarantee that all users express themselves. There are diverse options (the commune, village, group, water conduits, etc.), and several selection criteria must be considered: size (small groups favour exchange), composition (people who know each other will communicate more easily), neutrality (existing conflicts, bans, or hierarchies can make communication difficult, even impossible), public acceptance (arenas that are outside the control of the existing system of power have little chance of being authorised).

When there is a large number of users, "reflection delegation systems" can be adopted or a few people nominated by grassroots groups can be entrusted with elaborating proposals that they will submit to the users for validation in group meetings. This option is often appreciated by users who wish to lower the transaction costs generated by repeated meetings. In such systems, it is important that the users clearly understand the stakes behind the reflections when they chose their representatives. Indeed, the choice of the people mandated to make proposals will condition the quality and legitimacy of the proposals they formulate. Information exchanges and decision-making are reserved for user groups.

Finally, since it is obvious that no rules will satisfy everyone, one must find mechanisms that make collective decisions possible. "Consensus seeking" is often favoured for decisions that will then be validated by majority vote.

In Prey Nup, the grassroots reflections were organised in "owner groups". Made up of approximately twenty households, usually neighbours who have worked together, these groups are part of the villages' administrative organisation and therefore remain under the control of the village authorities. Each group delegates to one or two people the task of elaborating, with the representatives of village's other groups, a village proposal for the associative structure of the future polder users' association (PUA). The "group representatives" from the same village form a "village assembly of representatives". The proposals elaborated by the village assembly of representatives are regularly submitted to the "owner groups" for discussion and decision.

- **Giving Users Responsibility for the Process: Financial Participation**

As the practitioner in charge of conducting a "participatory process" one is often tempted to pay the villagers for the time they spend in discussion meetings. By lifting the transaction cost barrier, these subsidies are theoretically supposed to allow a majority of users (and not just the wealthiest) to attend the meetings and thus favour "participation".

In reality, one takes all the more responsibility for a process if one contributes out of one's pocket. In this spirit, it is important to take care not to subsidise excessively the discussion meetings. It even seems to us appropriate and useful to suggest that users "participate financially" in meeting the costs of collective reflection.

In Prey Nup, the project's contribution to the information and collective reflection meetings was limited to tea and a few packs of cigarettes. Then, when the permanent representatives were elected to elaborate the statutes, the project formalised a "loan" to the pre-PUC which was to be reimbursed by the users after the first user fee collection. This precaution probably contributed to the responsibility of

the elected officers vis-à-vis the users, but not of the users vis-à-vis the process! Indeed, the elected PUC officers and the project team observed a general outcry by users when it came time to collect the user fees. It was only when one had to "pay out of their own pockets" that ears opened and tongues loosened. In reality, this reaction was very constructive because it made real dialogue on the stakes behind the user fees and the management transfer possible.

- **Coordinating Collective Reflection on the Functions to Be Fulfilled**

Coordinating collective reflection consists of helping users build a collective organisation. While taking care not to impose a pre-defined schema, the coordinator's role is to orient user reflections, formalise and summarise their proposals, point out any inconsistencies or weaknesses, etc.

To structure the reflection, it is useful to begin by identifying the "functions" to be fulfilled (for ex., water management, maintenance, financial management, user management, etc.). One then identifies the "operations" to be conducted for each "function" (for ex., establishing the water management plan, labour on infrastructures, etc.). It is then a matter of "dissecting" each of the "operations" and reflecting on how the "roles" could be played to carry out the "operations" (for ex., decision, financing, execution, control, advice, etc.): Who decides? Who executes? Who controls? When? Where? How? Why? What levels are most pertinent? What should the control system be? How can one lower costs? How can one cover the costs?

The time devoted to this is an investment that should not be under-estimated. Indeed, it is during these discussions that the stakes and difficulties to be overcome are expressed, that the users "take ownership" of their organisation, and that the systems of authority and collective rules in force that the new management organisation must not ignore appear implicitly.

In Prey Nup, the process took several months. Seven working meetings were organised in each of the villages on the following subjects: polder rules, water management, maintenance, financing, and financial management. In total, this meant 250 village assembly of representatives meetings and 600 user group meetings - a huge amount of "participatory" coordination that made it possible to identify problems, emphasise difficulties, and formulate proposals.

- **Multiplying Vectors of Information on the Process**

Information is a key factor in the "participatory" process. Numerous vectors in addition to user group meetings can be used: posters, loud-speaker messages, video tapes in video shops, radio and TV messages, diverse events, etc. Word-of-mouth obviously functions considerably (but comports the danger of a deformation of the initial message). One must also think of the existing authorities: the local authorities, of course, but also the deputy, the political party, pagodas, and mosques, etc. Generally speaking, the golden rule is transparency and uniformity of speech - the same information to all.

In Prey Nup, numerous information vectors were used: a billboard was installed in each village, video messages were prepared by the team and distributed in video shops, multiple types of posters were made, the pagodas and mosques were informed, meetings were organised with those "opposed" to the project, the Prey Nup Water Festival was an occasion to validate the decisions, etc. Yet, all this was still insufficient: we had neglected other channels that were called on when it came time to pay user fees, specifically the deputy and political party representatives.

- **A Pre-FWUC to Finalise a Consensus Proposal**

In the case of large perimeters, the necessary segmentation of reflections (groups, villages, etc.) leads to proposals that inevitably reveal divergences on various points. In this case, one can suggest that users form a "pre-FWUC", a sort of "constituent" whose main mandate is to finalise a single proposal and represent users vis-à-vis the Government. Called on to fulfil different function, the "pre-FWUC" does not necessarily reflect the configuration and operating mode of the future "FWUC".

In Prey Nup, a "pre-PUC" was mandated to prepare and submit for approval the PUC statutes and by-laws, prepare the registries for user fee collections, prepare the PUC's annual budget, identify staff and training needs, and organise the elections of PUC officers. The "user groups" contained in the pre-CUP's organisation chart eventually disappeared from the structure of the PUC in charge of polder management and maintenance.

Institution Building: A Long-Term Process

Using the terminology of Ostrom (1992; 1997), we define "institutions" here as "complex, negotiated, adaptable ensembles with multiple levels of organisation made up of rules, systems of control and punishment to enforce these rules, conflict-resolution mechanisms in the case of ambiguity, and procedures to re-negotiate and modify the rules if needed, allowing the users of an irrigated perimeter to (technically, socially, and financially) manage it optimally and sustainably". "Building" these institutions, which are more than the mere FWUCs mentioned in the previous section, can only be conceived of as a long-term process.

- **Including All Stakeholders in the Reflections on the Transfer Process**

Numerous stakeholders are more or less closely concerned by management transfers: users, FWUC members, local authorities (province, district, communes), technical departments (water resources, agriculture, land registry, environment, etc.), Ministries, etc. Some will be directly involved in performing this or that function, others will be called on to provide assistance from time to time, and finally others will see their prerogatives or powers challenged. For all these reasons, it is important to include all these stakeholders in the management transfer process very early on. The way in which they should be involved in the process remains, however, to be examined on a case by case basis and it is sometimes prudent to adopt a progressive approach. Thus, for example, we believe that it is preferable to conduct the FWUC creation process independently during the early stages.

In Prey Nup, the various stakeholders were included progressively, with more or less convincing results. For example, the PUC creation process, conducted with very little interference by commune chiefs, favoured a certain degree of autonomy in PUC direction and management. However, the commune chiefs continuously emphasised the fact that they were involved in user fee recovery rules at only a late stage in order to justify their lack of enthusiasm when it came to pursuing poor payers.

- **Building Trust Among Stakeholders**

Nothing is ever certain in an institution-building process and the "trust" factor is obviously crucial: trust between users and Government, between users and their elected FWUC officers, between elected FWUC officers and the technical departments, etc. Building this trust must be a priority objective in the strategic undertaking of the support project. The practitioner in charge of institution-building support should in particular endeavour to first build his own "trust capital" by respecting a few simple, widely known rules: say the same things to all stakeholders, keep one's promises, stick by one's partners throughout thick and thin...

In Prey Nup, for example, the official acknowledgement of the PUC, the governor's authorisation to collect user fees, and the relative success of the first user fee collection by the PUC, were the object of prior work that had aimed to strengthen trust among the protagonists. Among other things, the "trust capital" acquired progressively by the practitioner's team allowed it, on several occasions, to act as intermediary and to bring other stakeholders closer together.

- **Make Roles and Responsibilities Explicit and Formal**

In a “stabilised” institutional environment, the rules¹³ are generally firmly anchored in the community's values and behaviours and often no longer need to be made explicit. The situation is radically different in an institution-building process that is bound to upset habits. The “unsaid” and “taken for granted” then become a large source of confusion that can lead to reciprocal losses of trust or even latent conflicts. Experience has shown that it is preferable to clearly and explicitly set forth the roles and responsibilities of all parties and then formalise them.

During the “crisis of confidence” when the drought hit in Prey Nup, we clearly saw the ambiguous position adopted by provincial MOWRAM bureau that declared that the PUC was fully responsible for water management whereas no official delegation of management had been pronounced and the PUC was in the learning phase. It would have been useful to have made the responsibilities of the various parties explicit and formalised them in writing.

- **Furthering “Real-Life” Learning**

It is well known that one “learns by doing”. This adage, which emphasises practice in the learning process, is particularly suited to institution-building processes in which it is as much a matter of “building” and institutional structure as it is of acquiring the skills needed to run it. It is only by “trying one’s hand” at financial management/accounting that one can measure the need for rigour in money handling procedures and that one can potentially perceive the need to call on a professional administrator/accountant. It is through hands-on experience that one can identify the technical, operational, and organisational difficulties involved in water management and identify training needs.

Conceptual reflection is often too abstract and rarely makes it possible to plan for all possible situations. Real-life learning is concrete and responsibility-building but can cause the process to fail if it leads to errors whose consequences are unmanageable. Therefore, one must carefully prepare for these real-life learning phases (conceptual reflection, theoretical training, elaboration of tools), accompany them (parallel controls), and optimise them (assessment of successes and failures).

In Prey Nup, for example, the elected pre-PUC officers were reticent to hire a professional administrator/accountant, saying “we can manage the money ourselves.” The project's option of granting them a cash advance while simultaneously demanding transparent and irreproachable accounts rapidly changed their minds. We also saw that it was indeed when it came time to pay the first user fee that the users were placed in a situation to “learn” how to contribute to the new polder management/maintenance system. However, the way that the PUC officers managed user fee exemptions in 2001 led to inextricable social situations that were very difficult to resolve. Some of these difficulties could have been avoided by spending more time on preparations and being more present in support of the PUC.

- **Using Crises to Further Necessary Adjustments**

“Intense” periods during social processes because of the tension they create, situations of crisis are also crucial periods because they act as powerful “spotlights”. Often, “crises” cause obvious blockages and misunderstandings to stand out clearly for observers - on the condition that they are able to distance themselves from the crises, and as long as dialogue with the stakeholders concerned remains possible.

If the practitioner has been able to maintain sufficient distance from the social process, it is in his interest to position himself as a “constructive mediator” by orienting the partners towards the following three-step process. First, the practitioner must not deny or minimise the crisis but rather acknowledge it and help the partners take accurate stock of its scope. Then, the interlocutors must be led to seek the

¹³ Here, we are referring to Ostrom's “actually applied” rules.

reasons behind the crisis. Finally, the stake is to formalise proposals that will make it possible to avoid this type of crisis in the future.

Crises are also “key” periods in institution-building processes because they generally force stakeholders to make their positions explicit, or even agree to formalise them.

In Prey Nup, for example, the “drought crisis” of December 2001 made it possible, among other things, to emphasise the need to define the limits of the water management service, reaffirm the Government’s political will to support management transfer operations, specify the roles of all parties during the management transfer phase, formalise these relationships in official documents to be written, etc.

- **Combining the Legitimacy and Legality of Rules and Authorities**

Rules are only pertinent, legitimate, and applicable in so much as they respond to concrete stakes for stakeholders. These stakes are always specific, at least when it comes to details. In addition, as Ostrom very clearly explains, operational rules (those that regulate day-to-day management of user fees, water management, dike protection, etc.) are only legitimate and meaningful for stakeholders if they fall within rules of a higher order - the “rules of collective choice” - that define the principles that are socially shared by stakeholders. Their practical effectiveness depends on their combining technical pertinence *and* social legitimacy.

Effective choices are choices that embody an accepted compromise between individual and collective interests, and between technical effectiveness and social legitimacy, and that are carried by stakeholders that have the legitimacy to enforce them and punish deviations from the rules. Imperfect but legitimate rules supported by a legitimate system of power willing to discuss them and modify them in practice are better than imposed rules even if the latter are supposed to be more effective from a strictly technical point of view.

These institutional economy arguments regarding the conditions for sustainable management of a collective good (Ostrom, 1992; 1997) were largely verified in the Prey Nup framework. They show that the elaboration of such rules is a progressive “tuning” process conducted by the stakeholders concerned. Simply applying a standard model of statutes and by-laws is in no case an appropriate answer. On the contrary, doing so can only leave the stakeholders to face stakes that are poorly or not at all identified and conflicts of interest that can not be solved. And, even if the result is largely “classic” solutions, one can not bypass a real process of collective elaboration of rules based on the identification of concrete challenges and discussions of how to meet them. This is the only way to build a shared vision of the stakes (even if contradictory interests remain), ensure the legitimacy of the rules, and allow those in charge to build a clear vision of the stakes that will allow them to modulate the application of the rules and adjust them if needed in light of experience.

Even when they are built using a participatory approach, the legitimacy of the rules and systems of authority in charge of enforcing them is often fragile during the first stages of institution building. Indeed, these first stages truly redistribute the playing cards, upsetting an always unstable balance of powers. Thus, for example, we evoked earlier how the legitimacy granted to directors by democratic elections sometimes interferes with the legitimacy of the “powerful”. This is why a legal hand over of authority is desirable and necessary to strengthen and consolidate locally-produced legitimacy.

For this, it is normal and necessary that Government define the conditions under which it provides support. It defines the legal framework and tools (transfer contract, modalities for legal recognition of the organisations, etc.). Model statutes can of course be used on condition that they list the questions that must be answered by the statutes to be written, provide a framework for the conditions for obtaining acknowledgement by Government, and structure the discussion process without claiming to provide standardised responses (which will necessarily be inappropriate) from the outset.

Thus, a constant back-and-forth between legitimacy and legality seems to be characteristic of the institution-building process, resulting in a balance (always unstable) between these two sources of

authority. A legal structure lacking the support of local legitimacy would have no chance of operating. Local negotiations need a framework to take shape.

In Prey Nup, the PUC statutes were initially elaborated without any reference to the model statutes proposed in Application Decree no. 1: the organisation chart, modes of operation, and rules clearly result from proposals formulated by users. The statutes were then brought into line with the imposed legal framework, a necessary step to obtain the legal acknowledgement which was indispensable to increase the PUC's legitimacy within the local institutional landscape.

From Projects to Politics: Influencing in the Legal and Institutional Framework

We discussed above just how important it is to link management transfer operations conducted in the field with the process of elaborating a legal framework that makes these operations possible and strengthens them.

We believe that concern for this aspect must not be limited to "experimental projects" but rather be applied to all transfer projects. In other words, all management transfer operations contain their share of specificity and the unknown which make them in fact experimental processes. This is the reason we suggest that the legal framework (law(s), sub-decrees, decrees, etc.) initially insist on the governing "principles" for rather than on the "form" of management transfer operations. It is not too difficult to imagine types of relays between the "field" and the "legislators" and "ministers".

It is, in all cases, crucial that the practitioners and partners involved in management transfer processes accept and shoulder the mandate of identifying "legality blockages" and "legality needs", clarifying them, and possibly formulating proposals and transmitting them to political decision-makers.

The donors and delegated managers would do well to plan the means and time needed for this "field-to-policies" relay which can only benefit the ensemble of stakeholders.

We have shown how, throughout the Prey Nup project, this mandate was shouldered by the practitioners outside of their assigned terms of reference. Experience shows that some political decision-makers are quite willing to discuss concrete situations in the field and seek suitable institutional and legal solutions. We are not saying that this is easy, merely that it is possible.

What Is the Practitioner's Place in the Process?

- **The Demands of an Institution-Building Support Process**

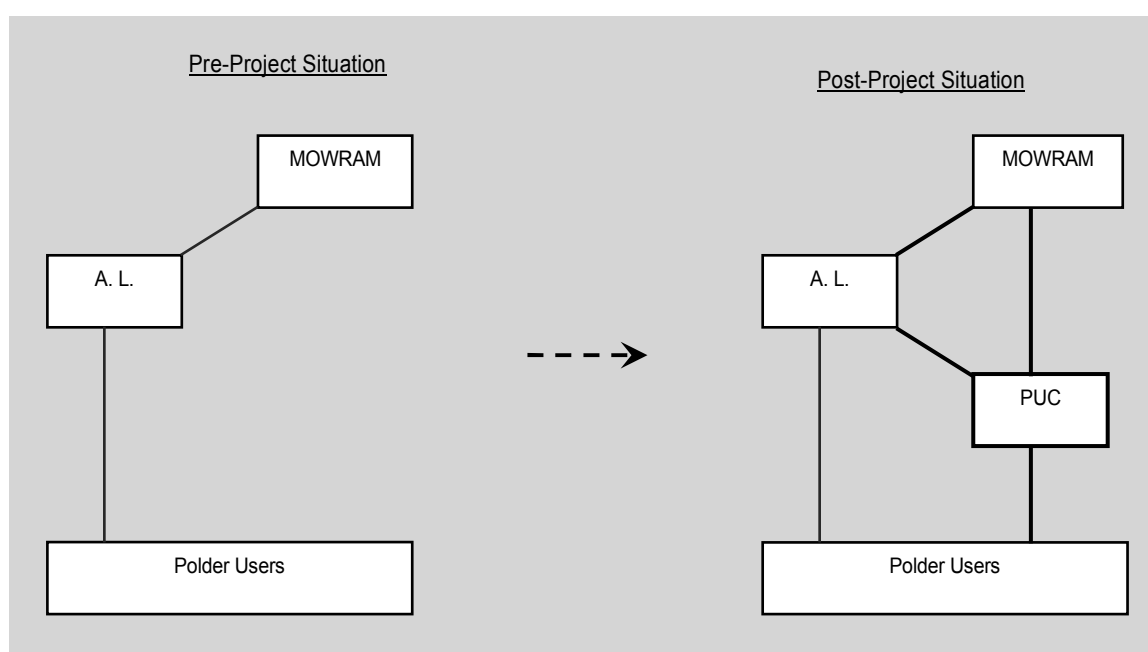
We have seen that an institution-building operation is a social process that transforms rules, powers and stakes. The issue examined here is the position of a project practitioner in relation to an institution-building process that the practitioner has been mandated to support. How can one organise and conduct this support for a social process that, even when finalised (*i.e.* the management transfer), can not for all that be programmed? What place should the practitioner who is destined to withdraw hold? Once again, there are no hard and fast rules, merely a few general principles that marked our actions in the framework of the Prey Nup project.

- **“Navigate while Keeping on Course”**

Generally speaking, the project designer sets a “general objective” and “secondary objectives” that, on the condition that a certain number of “hypotheses” prove exact, should become “results” that can be measured with “objectively verifiable indicators”. The project organisation plans “actions” and “activities” as well as the “means” and the “budget” needed for their implementation.

Despite the fact that this programming/budgeting exercise is indispensable, it often turns out to be not very operational when it comes time to implement the project. And numerous events such as elections, unpredictable weather, poor harvests, etc. will inevitably interfere with the project’s initial schedule. It is a mistake to focus efforts on the scheduled activities when it is above all important to not lose sight of what is essential - the “general objective” that “sets the course”.

For the Prey Nup project, the “course” can be seen as follows: lead polder users to create a PUC and then build the relationships between the PUC, users, MOWRAM, and local authorities while aiming for efficient and sustainable polder management/maintenance.



It is all a question of knowing how to “navigate”, that is to say be willing to deviate from the programme, take the time to wait, and bend rules. When doing so, it is useful to keep in mind a few navigation principles:

- For each decision, one must ensure that legitimacy is respected and responsibilities shouldered. One must look at who is speaking and who decides. One must reason in terms of the current situation and the situation one is building. This requires constant effort clarifying and making explicit the responsibilities and commitments of all parties.
- Any decision taken today commits one in the future by the precedent it creates. Nothing is insignificant. Any “rule bending” likely to create a bothersome precedent must be justified and explicitly called “an exception”.
- All situations can be beneficially used to progress in reflections and institution building. When the unexpected happens, one should look for the positive aspects and the aspects that could be emphasised in order to further reflections.

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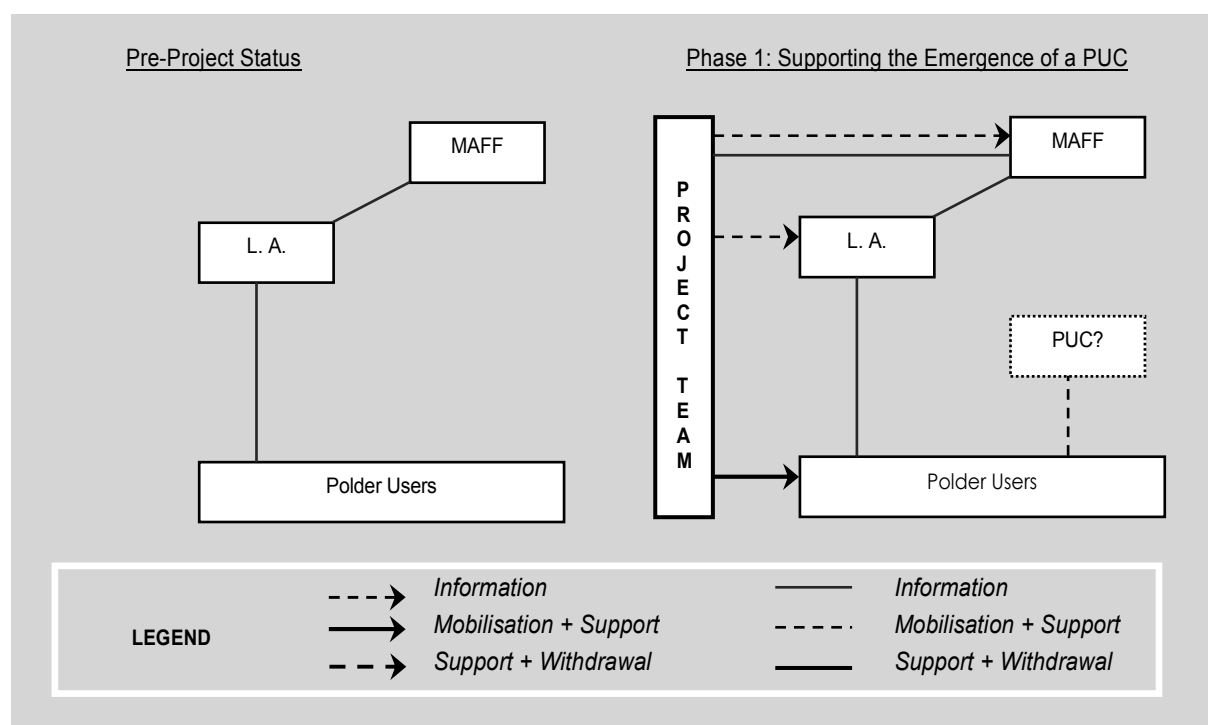
An account of the process in Prey Nup clearly shows just how difficult - even impossible - it can be to follow a programme over three years, one year, or even sometimes a few months. A simple reminder of the "unexpected" illustrates this. Construction delays, heavy rains followed by drought, the communal electoral campaign, etc. were all exogenous factors that interfered directly with the transfer process underway. The "consultation" of local authorities when setting the amount of the user fee for the year 2001 clearly shows the importance of carefully thinking through and enacting each "exceptional decision". Everyone should play their own role and assume their own responsibilities; the procedures that clarify the project's decision to grant an exceptional subsidy must be respected.

• "Taking a Position": from Mobilisation to Mediation

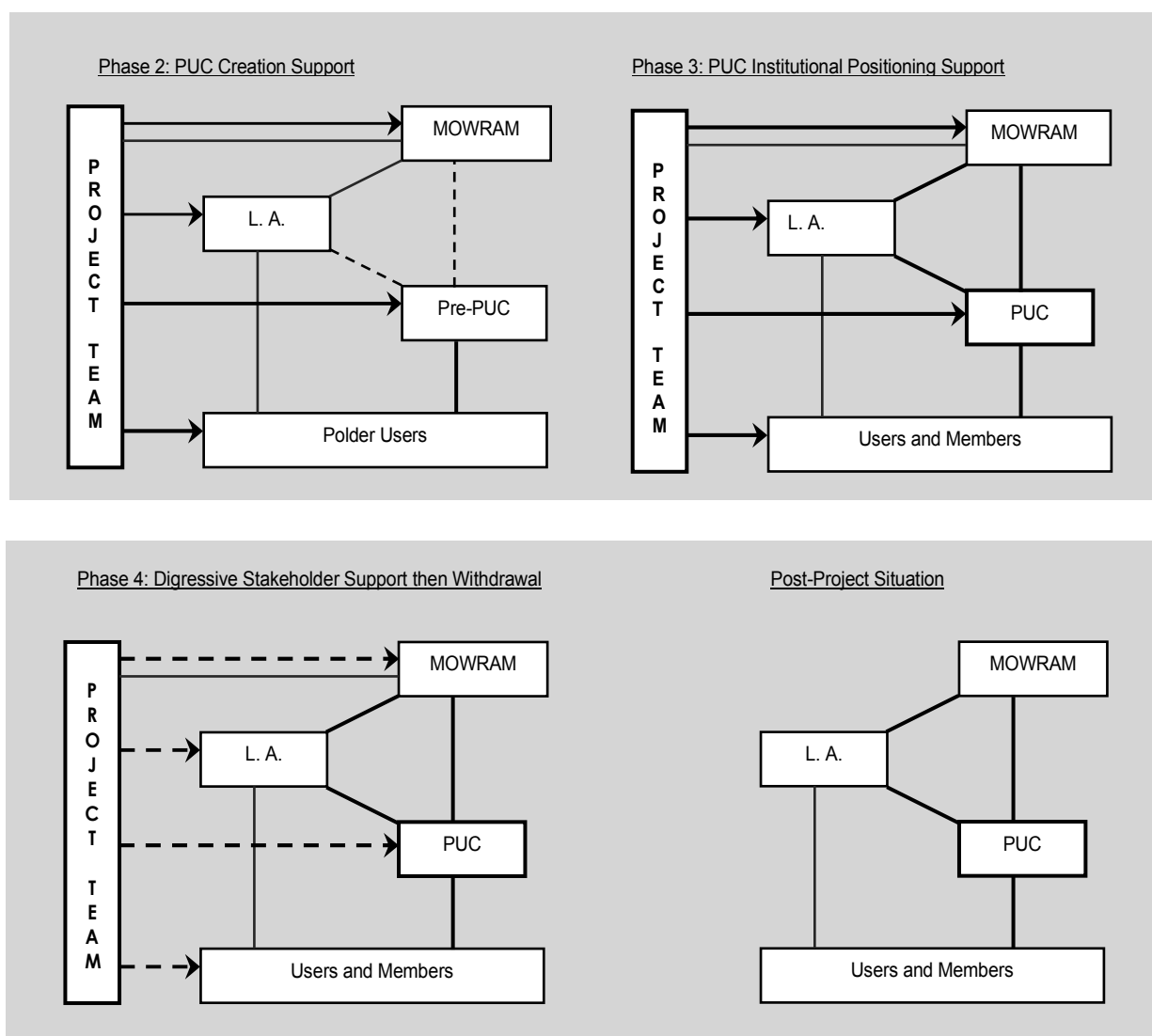
Throughout project implementation, the practitioner is led to take a position vis-à-vis the process he intends to support. There is nothing easy about this. First, the practitioner has a temporary role and must therefore avoid taking up too much space in the institutional landscape. Second, he will not act in the same manner if he wishes to "mobilise" stakeholders or "bring together" partners. Finally, there are multiple partners and their energies must be mobilised properly.

Experience has shown that it is more useful to focus one's attention on the "relationships between partners" than on the "partners" themselves. When doing so, it is useful to keep in mind the targeted institution-building schema. This allows the practitioner to mobilise energies in different ways for the different relationships to be created or reinforced. Projects often evolve progressively from the position of "mobiliser" to the function of "mediator".

In Prey Nup, one can visualise the institution-building stages as follows: one phase supporting PUC emergence, a phase supporting PUC creation, a phase supporting the PUC's institutional positioning taking in the local institutional landscape, and a phase of decreasing project support.



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- **“Accompanying” the Process: a Demanding Role**

One of the “golden rules” well-known to development practitioners is to “avoid doing it for them”. In our opinion, when certain practitioners apply this rule - which we feel is a good rule - it sometimes takes the form of a disconcerting laissez-faire under the correct, but improperly used, pretext that social stakeholders must learn for themselves and that mistakes are an intrinsic part of the learning process. In this case, the practitioner limits himself to observing, commenting, assessing, and advising.

We believe that supporting a social process is in reality a very demanding role in terms of vigilance, commitment, and work. While it is obviously not a question of doing things in the place of one's partners, it remains necessary to prepare and test various scenarios and the accompanying tools so as to be in a position to anticipate the problems that one's partners could encounter, propose tools in function of the choices they make, advise them and facilitate their reflections, possibly provide training, “monitor” implementation and results, and finally assist with assessment. It is a huge job if one wants to do it properly, and a much more demanding job than “doing it for them”.

In Prey Nup, the elaboration of water management and water management monitoring plans was indeed shouldered by the elected PUC officers. Considerable preparations were conducted upstream: team elaboration of a method for elaborating the water management plan, team test of a water

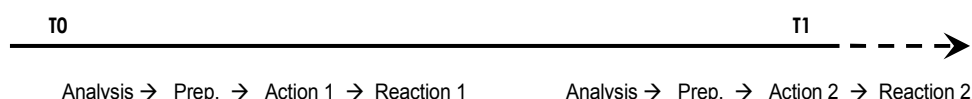
management plan, elaboration of monitoring tools and procedures, team testing of these tools, etc. Then, during PUC implementation, regular (albeit still insufficient) monitoring was elaborated by the project that made the daily recording of water levels and precipitation operational. This monitoring was very useful during the drought crisis when the practitioner helped the partners find explanations and implement short- and medium-term solutions.

- **“Keeping the Rhythm”: “One Step Ahead”**

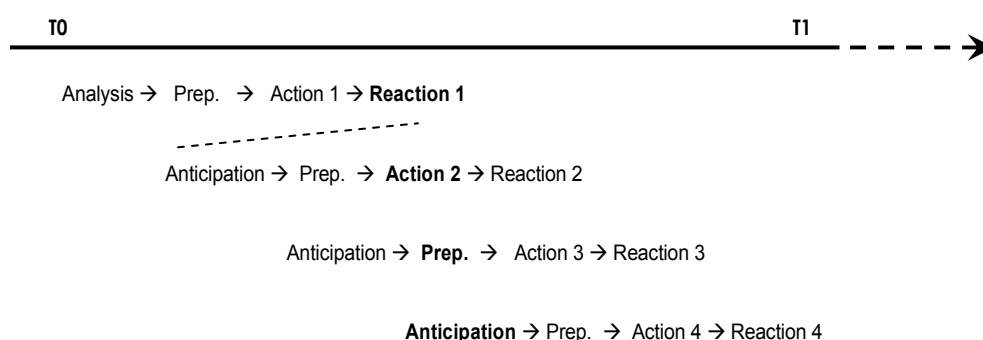
Experience has shown that it is preferable to “strike while the iron is hot”, that is to say: avoid demotivating the stakeholders in an institution-building process. As these stakeholders are often the object of numerous outside solicitations, the practitioner generally has an interest in imposing, as much as possible, a certain rhythm to the process launched.

At the same time, practitioners who wish to “accompany” a social process are confronted with two necessities that may seem contradictory with the desire to “move quickly”: the necessity of carefully “preparing/monitoring/assessing” the actions undertaken, and the necessity of adapting to the inevitable unexpected events caused by outside factors or to the reactions of the stakeholders themselves.

The first necessity is time-consuming: analysing the situation, preparing methods and tools, implementing action by one or another of the partners, observing the reactions of all stakeholders... In theory, the next cycle can only be launched after an assessment of the previous cycle.



If one wants to speed up the process (as donors and politicians generally wish to do), one must then rely on “anticipation”. In short, this means anticipating or predicting the reaction(s) to the previous action and preparing the next action based on this prediction. One then rapidly finds oneself in a situation where one is simultaneously assessing the reaction(s) to the first action, implementing the second action, preparing the following action, and anticipating the reaction(s) to the third action.



Even though reality is, obviously, rarely as systematic as this theoretical situation indicates, it is important to note that the project team is constantly in a position of assessment, action monitoring, preparation, and anticipation. And this gives the project team a heightened reactivity and allows it to fulfil the second necessity. It is furthermore advisable to set limited objectives for each action and to move ahead step by step in order to accelerate the iterative process between action and reaction, limit time lags, and diminish the risks inherent to anticipation.

Thus, by getting “one step ahead” and “keeping the rhythm”, applying these few simple principles allows the practitioner to be more reactive, support stakeholder mobilisation, and ensure quality accompaniment.

Designing Management Transfer Projects

Reflections on rehabilitating irrigated perimeters and the necessary participation by users are not new. Between 1987 and 1989, a Réseau Recherche-Développement working group studied this subject and took stock of the approaches in use at the time (Réseau Recherche-Développement, 1991). International institutions also conducted considerable reflection on management transfers in the 1990s. Yet, even though a clear evolution of thought has placed management transfers at the heart of the process, concrete projects often fall short of this ambition, or at least proclaim this ambition but do not adequately provide for it in their design.

Rural engineers underestimating the stakes? Construction-related financial stakes? Ingrained habits and insufficient time for new ideas? Difficult negotiations within donor institutions? Practitioners hesitating to innovate when they are assessed only on the contents of the contract signed before the project began? There are undoubtedly many reasons and many combinations of reasons. Nevertheless, transfer projects based on a rehabilitation component and "support actions" that have separate calls to tender for construction and farmers' organisation support almost necessarily generate insurmountable problems as to timing, phasing, and inter-practitioner coordination as we were able to see here even if "luck" in elaboration allowed us to overcome these difficulties. Recurrent problems are omitted or ignored, for example: the land tenure repercussions of losing land to new infrastructures or dikes, how to manage construction phases without upsetting cropping seasons, etc.

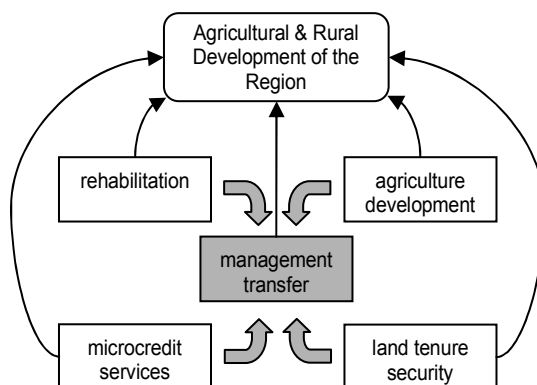
Coherent Elaboration Articulated Around the Institution-Building Process

- **A Miniature Copernican Revolution: Placing the Management Transfer at the Heart**

The value of planning several additional components in a management transfer project has been proven. But the choice of the various components and how they relate to each other is not in any way systematic. The "rehabilitation/infrastructure construction", "agriculture development support", and "management transfer" components are practically mandatory. The "credit" and "land tenure security" components are highly recommended. Depending on the context, one can easily imagine other areas of intervention such as "road infrastructures", "education/functional literacy training", etc.

The most important thing, in our opinion, is to proclaim loud and strong that the project's main challenge is the management transfer process. In short, this implies placing the management transfer "at the centre" of the project's strategy.

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This "miniature Copernican revolution" has repercussions on the totality of project design and, first and foremost, on the *choice of additional components*. Thus, the choice and complementarities of the project components will be examined not only from the developer's or the financier's point of view (i.e. "the expected results from the various components will create conditions that favour agricultural development and the financial return on the investments made"), but also from the practitioner's point of view (i.e. "the simultaneous implementation of the components will create conditions that favour the management transfer process").

In addition, the decision to place institution building and management transfer "at the heart" of the project have repercussions on:

- the construction design process: users must validate the design of the works to be done;
- the work plan and schedule: the institution-building process takes time and requires a degree of flexibility in implementation-as long as one keeps "on track"; and
- the institutional structure: the practitioner providing support for the management transfer must have at least equal "weight" in the project's bodies and coordination procedures as does the construction company.

• **Take the Time to Design the Physical Rehabilitation Project with the Users**

One direct consequence of placing institution building at the centre of one's preoccupations is the necessity for user "participation" in designing the rehabilitation.

Today, everyone agrees that this is a necessity, if only to take into account and profit from the users' knowledge of their physical, social, cultural, etc. milieu. And - if there is any need for a reminder - in a management transfer project, the participation of users in designing the infrastructures is all the more crucial because one plans to transfer management and maintenance to them and, more specifically, make them responsible for financing management and maintenance!

Therefore, why is this "participation requirement" so rarely fulfilled? More than cultural or corporate resistance¹⁴, we think that this state of affairs is, today, mainly due to the imposed procedural constraints in the project identification and examination stages.

Conducted beforehand, the primary vocation of project identification or ex-ante assessment missions is in fact to help donors decide whether or not to finance the operation. These are generally short missions entrusted to teams of experts that are supposed to be sufficiently competent to assess - with a few weeks of presence "in the field" - the situation and formulate proposals that "fit" the donor's frameworks.

¹⁴ Primacy of the "engineer who knows" over the "farmer", primacy of the "hydraulic engineer" over the "anthropologist"...

It is not our intent to denigrate our colleagues - donors or practitioners - whose competence and deontology we salute and some of whom show great pragmatism when it comes to simplifying these procedural constraints. Rather, we seek to emphasise the fact that in these identification missions neither the goals set nor the amount of "field presence" create the conditions for real user participation in defining the rehabilitation.

This simple observation leads us to think that management transfer project design should be part of a "prior stage" separate from the identification mission and that makes it possible to take the time to accompany users in defining the rehabilitation options.

- **Local Preparations Begin Well Before Construction**

Another direct consequence of giving priority to institution building is that it is vital to create the conditions for running a management transfer operation and these preparations must be done before the construction begins. This involves providing information, responsibility-building, and reflection, and aims to ensure the participation of all users, increase the credibility of the commitment to the transfer proposed by the Government, facilitate appropriation of the stakes by the users and institutions involved, organise collective reflection, define the rehabilitation, and ultimately confirm the stakeholders' involvement in a management transfer process. We believe that this commitment should be formalised between the Government and the users represented by a "pre-PUC".

In reality, these prerequisites are rarely provided for in management transfer projects and rehabilitation sometimes begins even before the users' willingness to cover the recurrent maintenance costs has been confirmed! In this situation, the practitioner finds himself having to "sell" the users on a management transfer contract the terms of which were defined by the Government! The possible consequences of this are known (for example, poorly designed rehabilitation that is not appropriated by the users, discontent caused by the negative effects induced by project implementation, refusal to pay user fees, etc.); these consequences are as many problems that weaken the transfer process and that need to be managed in any case.

We therefore strongly recommend including a "prior phase" in project design. This phase will give users and the Government time to ripen, clarify, and formalise their commitment to a rehabilitation and management/maintenance transfer project. Longer or shorter depending on the context and any unexpected events, this stage should never be cut short: it is crucial that it results in clear agreements before the rehabilitation - which will have thus been validated by the users - begins. This stage must be thought of as an investment that increases the management transfer process's chances to succeed.

Take the Time to Ripen, Clarify, and Formalise the Agreements Among the Various Parties

This "prior stage" that we recommend must, in our opinion, result in an agreement to undertake the management transfer process that is fully shouldered by the users and by the Government.

For this agreement to be valid and operational, it is vital that the users and the Government services be able to measure the stakes and implications. One must therefore be willing to take the time to allow the agreement to ripen.

We suggest that this agreement, which covers the "management transfer project", be clarified and formalised in a "project contract" between the Government and users. We think that this contract should, among other things¹⁵, specify the targeted goals, the expected benefits, the risks taken and the expected financial contributions, the starting referential and the system for monitoring progress, the

¹⁵ The list of items covered in this section is not exhaustive.

responsibilities of the various parties during the transition, and the promised training for the various parties.

• **Come to an Agreement on the Benefits, Contributions, and Risks**

Practitioners often find themselves in the position of having to “sell” users on the management transfer. In such a context - which is obviously not desirable - the practitioner usually insists heavily on the “expected benefits” in order to incite users to agree to the principle of assuming the costs of management and maintenance. This “deal” becomes one-sided in a way and is presented as follows: higher hoped-for yields in exchange for a firm promise to pay an annual user fee!

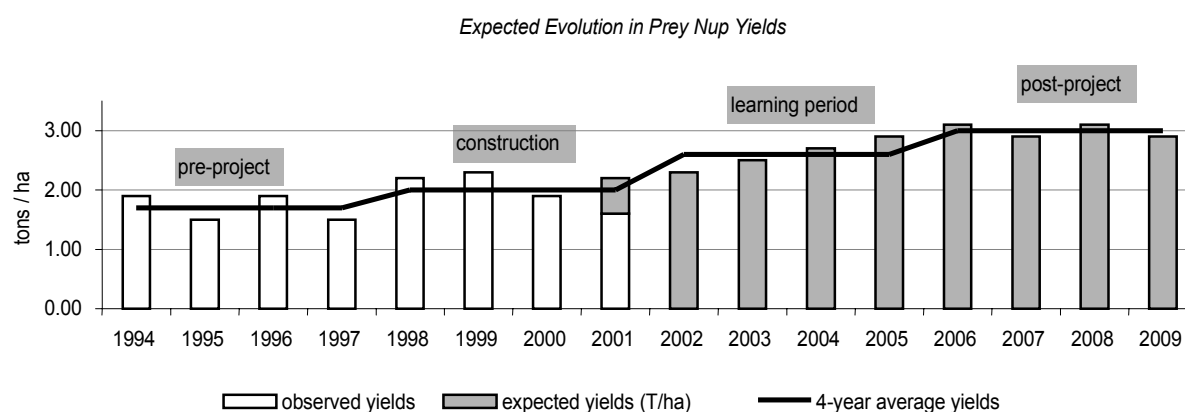
In reality, this simplistic presentation of the “deal” is not very honest for three reasons:

- the hoped-for increases in yields will be progressive, and the risks that could lead to negative fluctuations in yields remain;
- better service provided does not systematically result in higher yields; and
- management transfers have not been proven to lead to better water management services.

Approximately ten years can separate the “pre-project” situation from the “post-project” situation; this is an extremely long time for household finances. Before getting involved in such a process, it is crucial that the users clearly evaluate the “hoped-for benefits” and the “risks taken” as well as the adventure they are embarking upon. It is also vital to set the financial participation rules for all parties at this stage of institution building.

Slowly Increasing Yields with Inevitable Fluctuations

When presenting the stakes to users, the practitioner should explicitly state that the hoped-for benefits will appear progressively and slowly over the duration of the project. He should also state that there is no such thing as “zero risk” and that there will always be the risk of poor harvests (which may be due to the inconveniences caused by the construction, management errors during the learning period, or catastrophic weather).



In the Prey Nup example below, the eight years of the project correspond to the “building” and “learning” phases, both of which intrinsically present high risks for the quality of water management.

Thus, it should have been very clearly said at the start that, at best, the average hoped-for increase in yields would be progressive: 1.7T/ha, then 2.0T/ha, then 2.6T/ha, then 3.0 T/ha. It should also have been clearly said that both positive and negative fluctuations around this average would remain possible. If this had been done, the users could have better understood how 2001 - even though it was a bad year - did not fundamentally harm the rate of progression in average yields.

A Service that Does Not “Guarantee” Good Yields

Another frequent error is not clearly differentiating between the notions of “service” and “yield”. The management transfer plans the payment of user fees to finance a “service”, not to guarantee “increased yields”. This distinction is not obvious to many users. The practitioner in charge of presenting the stakes should explicitly say that while a good service increases the chances of obtaining good yields, it does not at all guarantee good harvests which may, for example, be affected by farmers neglecting their work or by the weather. In addition, one must also explain that this service can only be provided under certain conditions and these conditions must be set forth in the specifications for the perimeter.

In this approach, the user fee is calculated by estimating the cost of the service for all and dividing this cost (proportionately to surface area, for example) among users. One must ensure that this cost is reasonable in light of the expected benefits but this question is answered at earlier stages: during the feasibility study (is rehabilitation worth it?) and when making institutional choices (how can one ensure the viability of the service for the lowest cost?). This vision clashes with another which is present in the national directives on the creation of Water Users Communities. This second vision consists of calculating the amount to be paid in proportion to the gain in obtained yields (for example, 20% of the value of the increase in production), thus creating a direct link between increased yields (which can be difficult to evaluate objectively) and cost to users.

In Prey Nup, we discussed above how a lack of time led us to delay efforts at explaining this, and how we paid for this delay during the flooding and drought in 2001.

Can Users Be Better Managers than Government Technical Services?

The postulate that users will provide better management/maintenance than the Government is based on a certain number of hypotheses that need to be verified. In other words, one can not claim with certainty that users will be able to do better than Government technical services. It is a challenge. The users must be asked if they are ready to take on this challenge.

What Should the Financial Contributions of the Various Parties Be, and Under what Conditions?

Finally, the financial contributions to be made by users and by Government must be clearly defined. Who finances what? In what proportions? Under what conditions? A priori, any and all modalities can be envisaged as long as they fall within the legal framework set by Government. The users' contributions (user fees) could increase in stages in proportion to average yield increases and the government could contribute the rest of the funds needed to cover the annual budget of the pre-FWUC and then the FWUC. Fluctuations in yields due to natural disasters or conditions that make the water management service impossible could be covered by Government. There are no set rules. Whatever rules are adopted, explaining the rules and the modalities for potential re-negotiation of the rules very clearly is strongly recommended.

In Prey Nup, the start of the first user fee collection revealed that the users, the PUC, and the practitioner did not have the same understanding of the rules of the game. Some users felt they did not have to pay until the rehabilitation was complete yet the construction was not finished when it came time to collect the user fees. Referring to Application Decree no. 1, the elected PUC officers and the practitioner expected the Government to chip in to cover the deficit of the first year but the government representatives turned the request down point blank...

When Should User Fees Be Launched?

Launching and setting the user fee amount are difficult decisions with important stakes for the FWUC's credibility and viability. Waiting too long can make collection difficult as the initial agreements to pay will be older and the farmers will have already benefited from technical improvements without

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having had to finance them. Inversely, starting before concrete results have been obtained (or before they can be clearly expected in the short term) can reduce credibility and cause hesitation and low collection rates that may be difficult to correct. Furthermore, the FWUC must rapidly show that it can not operate without funds and the date chosen for the creation of the FWUC influences this choice but is not directly linked to the state of advancement of the rehabilitation.

In Prey Nup, the three years of user fee collections can be interpreted as follows:

- Users were asked to pay when they had not yet seen the benefits in the polders. They paid relatively well in year 1 (2001) but positive results did not arrive rapidly, hence a certain loss of confidence.
- Amplified by the drought and poor yields, this brought about a much higher non-payment rate in year 2 (2002). But the legal aspects, and notably the system for “enforcing” collection, had not yet been fully ironed out. The PUC could not force people to pay, nor could it exclude them from the service. The users became aware of this flaw and saw that not everyone played by the rules.
- In year 3 (2003 user fee collection), the service was objectively better than in 2002. Confidence in the service eventually grew but confidence in the system and in the “solidarity” among users deteriorated greatly: those who did not pay in 2001 and 2002 were right until proven otherwise because they received the same level of service (limited in year 1) for free. Poor payers were not punished in any way. On the contrary, the authorities leaned towards clemency (somewhat forced because there were no real means for action, and somewhat chosen because it was politically easier).

From this, one can conclude that starting user fees should be linked to two conditions:

- that the users have objectively benefited from the rehabilitation (or that the benefits will be felt rapidly), and
 - that the legal/institutional system be ready and able to punish poor payers immediately and firmly (either by excluding them from the service when physically possible or with other forms of retaliation). For this to be possible, one needs a clear legal framework for this aspect (the FWUC's powers, support from Government, the police, etc.). Also, FWUC rules need to have been finalised and the FWUC needs to exist legally.
- **Define a System of Reference and a Monitoring System that Is Legitimised by All**

Whether it be to measure benefits gained, calculate the return on the public investment, determine the amount of the user fee to be collected, or grant possible user fee exemptions, the users and the Government will sooner or later be led to reach a verdict on the evolution of cultivated surfaces and yields obtained. These evaluations are potential sources of conflict because they generally have heavy consequences for the pocket books of one or the other parties concerned.

For this reason, it is important to systematically assess the surfaces and observed yields as soon as possible “pre-project”. The modalities for this assessment, which can be repeated every year, must be determined: Who conducts it? How? With what control system?

One should seek to determine a system that is both reliable and not too “cumbersome” to implement. One must accept that the legitimacy of this assessment for both the users and the Government is as important as the results of the assessment.

The Prey Nup project illustrates the usefulness of establishing and defining modalities for yearly assessments. It rapidly became apparent that the system based on farmer surveys was insufficient: the way in which users under-estimated their yields (project feasibility studies in 1994 and 1996) or over-estimated their past harvests (some users wanted the 2001 exemption requests to be based on pre-project yields) is classic and enlightening. To avoid this flaw, starting in 1999 the project set up a yield monitoring system based on judgement sampling of the polders (nearly 1,500 samples taken and weighed!).

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yields for polders 1 to 4

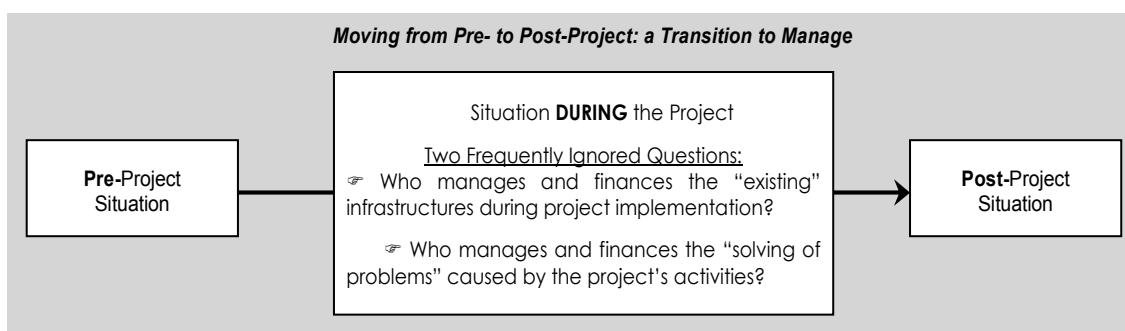
		zone 4		zone 5			zone 6			zone 7				
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P 4	1999	2.2	2.4	1.8	1.6	-	-	-	-	2.9	2.4	-	2.2 T/ha	2.3 T/ha 1.9 T/ha 1.6 T/ha
	2000	2.2	2.4	2.0	1.4	-	-	-	-	2.7	2.3	-	2.2 T/ha	
	2001	1.7	1.9	2.0	1.5	-	-	-	-	2.3	1.5	-	1.8 T/ha	
P 3	1999	1.5	1.9	2.7	2.6	2.2	2.6	2.8	2.7	2.5	2.9	-	2.4 T/ha	
	2000	0.9	1.4	1.8	1.0	1.3	0.9	2.3	-	1.9	3.0	0.6	1.5 T/ha	
	2001	1.5	1.3	2.0	1.3	1.5	1.4	1.9	-	2.1	2.6	-	1.7 T/ha	
P 2	1999	1.7	-	3.1	2.4	-	2.5	1.7	-	2.6	2.4	-	2.3 T/ha	
	2000	1.5	-	2.7	1.5	-	2.1	1.5	-	2.2	1.7	-	1.9 T/ha	
	2001	0.9	-	1.5	1.2	-	1.3	1.1	-	1.5	2.4	-	1.4 T/ha	
P 1	1999	2.8	1.7	2.8	2.0	-	2.7	1.9	-	2.3	1.8	1.4	2.2 T/ha	
	2000	2.2	1.7	2.7	1.8	-	2.4	2.0	-	2.2	1.7	1.6	2.0 T/ha	
	2001	1.7	1.5	1.7	1.7	-	1.6	1.6	-	1.8	1.8	1.5	1.7 T/ha	

Implemented by the project team, this relatively reliable system did not facilitate reaction to the sharp rise in exemption requests in 2001 because it lacked legitimacy. Transferring this function to the provincial bureau of agriculture was then envisaged.

• **Define Responsibilities During the Transition Phase**

Often, a "project-centred" vision of reality leads one to consider only the implementation and financing of the "transforming" activities planned in the framework of the project such as rehabilitation, agricultural development, microcredit service provision, land registration, institution building, etc.

Yet these activities will sometimes be spread over several years during which a certain number of daily tasks - managing water, organising infrastructure monitoring, etc. - must continue to be done. Who will carry out these tasks? How will the work be financed? In addition, the "transforming" activities cause disturbances (construction upsets the water management system, hampers circulation or cropping, etc.) that must be managed. Who will be in charge of managing these new problems? Who will pay?



Often neglected or taken for granted, "transition management" is a function that must be planned from the project design phase.

In the Prey Nup project, nothing had been planned to manage the transition. The development practitioner took the initiative to organised "technical committees" in charge of scheduling water

management, setting water management rules during construction, and organising the construction of temporary pirogue ladders to allow pirogues to circulate.

- **Plan to Train All Human Resources**

Management transfer operations create new functions to be fulfilled by technical services, territorial authorities, and the future elected FWUC officers. Yet, there is often a tendency to take for granted the availability of professionals and the capability of civil servants to adapt to these new functions.

We think - quite the contrary - that it is crucial to plan and initiate as rapidly as possible "training" mechanisms open to all who will be called on to play a role in the management transfer process (MOWRAM technicians, village and commune chiefs, elected pre-FWUC officers, and potential candidates for positions of responsibility in future FWUCs). Organised on specific technical subjects, the training sessions offer several related advantages:

- status-enhancing, training sessions are usually favourably viewed by civil servants;
- by letting civil servants (technical services, territorial authorities, etc.) get a step ahead of users, the training courses favour their adhesion to and involvement in the process to be conducted; and
- by bringing together civil servants from technical services, territorial authorities, and/or perimeter users, they create the conditions for communication that fosters trust.

It is obviously important that the training courses be high quality, context appropriate, and designed in the framework of the collective reflection process underway.

- **A "Project Contract" Between the Government and Users**

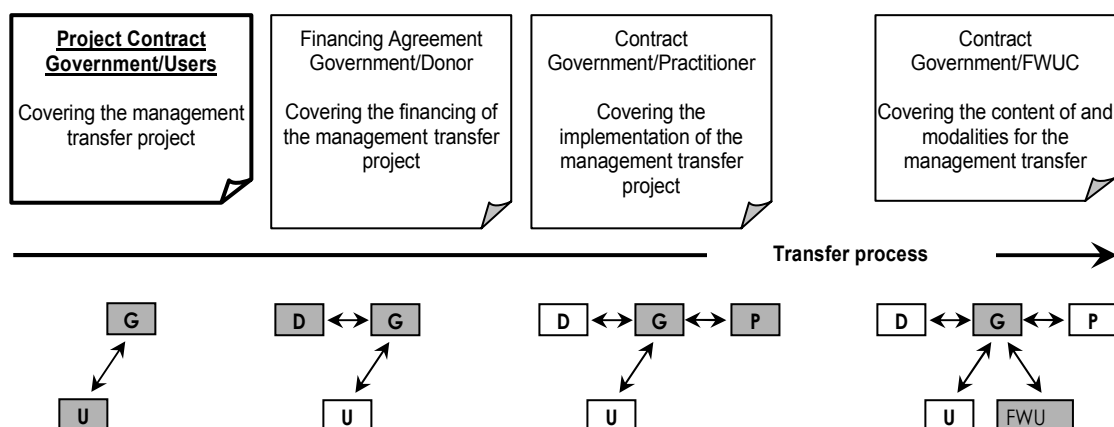
When one speaks of "contracts" in an externally funded management transfer operation, one generally thinks of contracts linking the Government¹⁶ and the donor, and the Government and the practitioner. These contracts, which could be respectively termed "*financing agreements*" and "*practitioner contracts*" define the financial, political and operational duties of the three parties. The procedures usually run smoothly and the customary elements are known. Establishing these contracts is the easiest task.

Usually, the project also plans for a contract that will define, post-project, the relationships between the future organisation (FWUC) and the Government. This is the "*transfer contract*" or the "*management delegation contract*" that, when the transfer process is complete, will define the responsibilities of the Government and the FWUC representing the users. While a lot remains to be done at this point, one can be sure that the institutionalists and lawyers will ensure that these contracts are in proper form.

There is one contract that is rarely discussed and that we believe is necessary and useful for management transfer operations - the contract between the Government and users governing the principal and modalities of the management transfer process, or in other words governing the "management transfer project" itself. We propose calling this contract the "*project contract*".

¹⁶ Here, the Government is represented by MOWRAM and the territorial administration.

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This contract is usually neither made explicit nor formalised in current procedures. The “beneficiaries” and the “stakeholders” are, of course, consulted during the identification, feasibility, and assessment missions but that is all. We have already mentioned how these missions, which are supposed to verify the population’s interest in and adhesion to the project, implement rapid consultation processes around projects whose exact outlines are still vague. In terms of contractualisation, at the most one might request a few signatures from the local authorities and a few villagers supposed to represent the users but hardly more, and this is more of a formality for the donor than a true contract. What is more, there is not enough time available to go further. This was the case for the Prey Nup project, for example.

The “project contract” we are suggesting here can only grow out of a “prior stage” of preparations that is sufficiently long to allow users and the Government to understand each other and commit to a shared project. This “project contract” should set forth the targeted goals, the hoped-for benefits, the risks, the financial contributions expected, the initial system of reference and the system for monitoring progress made, the responsibilities of the various parties during the transition, the training commitments of the various parties, etc.

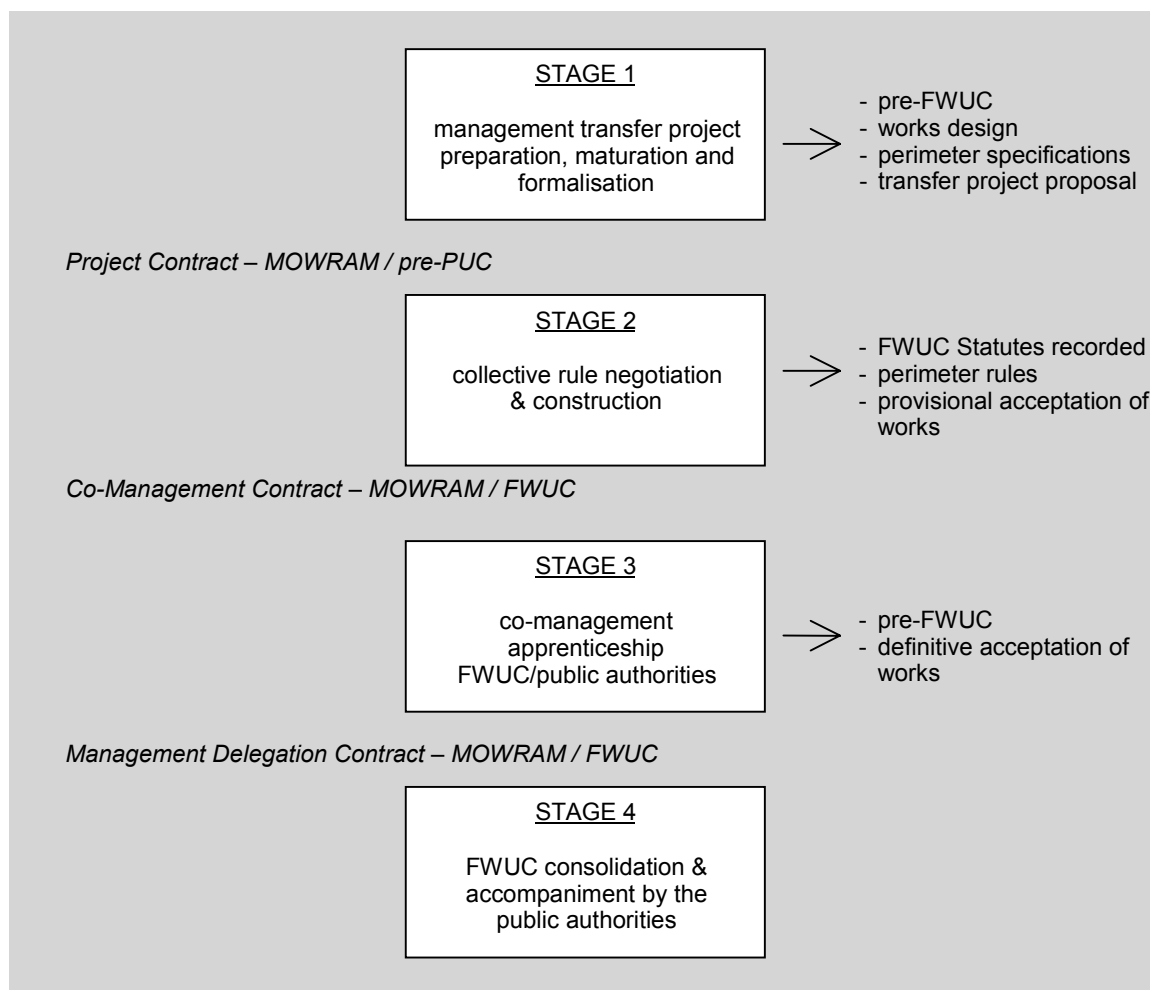
For large perimeters with thousands of families of users, several options can be envisaged. The terms of the agreement could be the object of a “public survey” and/or written approval signed by all users; the agreement could be considered valid after it has obtained a quota (set by law) of positive votes. The agreement would then be formalised by a contract between the Government and a democratically elected structure representing these users - a pre-FWUC.

Towards Four-Step Design?

We have repeatedly argued for the need for a “prior stage” that allows the Government and users to formalise a “management transfer project”. We have also emphasised the need to conserve a degree of flexibility in the strategic steering of such projects as long as one stays on course and respects a certain number of principles. Finally, analysis has shown that segmenting the transfer process can be useful in order to clarify stakes and responsibilities, and to spread difficulties over time.

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This leads us to imagine a management transfer process in four major stages:



We are very aware that each irrigated perimeter has its own unique qualities and do not claim to have formulated a standardised proposal applicable in all situations. Our ambition here is limited to giving, for each stage, an outline of sorts, a “check list” that can inspire project designers when formulating management transfer projects.

Finally, no matter what stages are proposed, the success of management transfer operations will also depend on the quality and commitment of the practitioners that accompany the process.

• **Stage 1: Preparing, Maturing, and Formalising the Transfer Project**

The goal of this “prior stage” is to allow the perimeter users and the government authorities to define the objectives and respective responsibilities of both parties regarding an irrigated perimeter rehabilitation and management transfer project.

It results in “perimeter specifications” and a “project contract” signed by the Government and the elected officers of a pre-FWUC representing the perimeter users. These legal and contractual documents serve as a basis for raising the funds to implement the management transfer project.

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Main Activities to Plan for the First Stage:

- official information and display of firm support by government authorities
- general diagnostic of the perimeter
- awareness-raising and human resource training
- plot and user identification
- clarification of stakes and risks
- pre-FWUC institution building
- legal acknowledgement of the pre-FWUC
- rehabilitation definition
- cost estimate for rehabilitation, management and maintenance
- establishment of specifications for the perimeter to be rehabilitated
- possible land consolidation agreement for encroachment of by the rehabilitation
- definition of the financial contributions by users and government authorities
- establishment of a starting system of reference and a legitimated assessment system
- preparations to manage the transition
- preparation of a project contract
- validation of the project contract by users and Government
- fund-raising for the continuation of the project

This "prior stage" can take from 1 to 2 years.

The cost of running this stage is financed entirely with public funds or international aid.

In the framework of a national management transfer policy, this stage would probably be run in close collaboration with MOWRAM's current Department of Irrigated Agriculture. To our knowledge, this would require providing this Department with specialised support so it can acquire the skills, methods, and tools needed to guide the collective reflection.

• **Stage 2: Negotiating Collective Rules and Implementing Rehabilitation**

Once funding has been obtained, the goal of this second stage is to implement the physical rehabilitation, negotiate the collective rules, and iron out the modalities for cooperation between a users' organisation and the government authorities.

It results in a "provisional acceptance" of the rehabilitation, the "legal acknowledgement of the FWUC", the official publication of the "perimeter rules", and a "perimeter co-management contract" signed by the Government and by the FWUC elected officials.

Main Activities to Plan for the Second Stage:

- official information and display of firm support for the project by government authorities
- human resource training
- elaboration/negotiation of FWUC statutes
- drafting of FWUC by-laws
- election of FWUC representatives
- legal acknowledgement of the FWUC
- possible recruitment of professional salaried staff for the FWUC
- elaboration/negotiation of the perimeter's collective rules
- legal publication of the perimeter rules

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- physical rehabilitation/construction
- provisional acceptance of the rehabilitation
- monitoring/verification of the rehabilitation by the elected officers of the pre-FWUC and then the FWUC
- monitoring/enforcement of the perimeter rules by the elected FWUC officers
- monitoring/observation by the FWUC of water management and preparing for post-construction water management
- user fee registry preparation by the elected officers of the pre-FWUC and then the FWUC
- collection by the FWUC of membership fees when the FWUC is created
- management of membership fees and a public operating subsidy
- land registration and deliverance of ownership titles
- possible establishment of microcredit services
- possible establishment of agricultural development support
- monitoring of surface areas and yields
- transition management
- validation of the "co-management contract" for the perimeter by the FWUC and the Government
- possible additional fundraising for the project

The duration of this stage is directly dependent on the scope of the infrastructure rehabilitation/construction.

The cost of this second stage is usually financed mostly with public funds and international aid. At the most, users may be asked to pay a membership fee when the FWUC is created.

• **Stage 3: Learning Co-Management by FWUC & Governmental Authorities**

This third stage is devoted mainly to a learning period for the elected FWUC officers and the government authorities and to the agricultural development of the perimeter.

It results in the "*final acceptance*" of the infrastructures, "*professional and reliable perimeter management*" by the FWUC, and a "*management delegation contract*"¹⁷ for the perimeter signed by the Government and by the elected FWUC officers.

Main Activities to Plan for the Third Stage:

- strong support for the project by public authorities
- human resource training
- possible revision of FWUC statutes and/or by-laws
- possible renewal of FWUC representatives
- possible recruitment of additional professional salaried staff for the FWUC
- lifting of provisos on rehabilitation/construction
- final acceptance of rehabilitation/construction
- co-maintenance of infrastructures by the FWUC's elected officers/professional staff and the government authorities
- application of perimeter rules and possible punishment of infractions (as examples) with the government authorities

¹⁷ or even a "transfer contract" if ownership of the infrastructures is transferred

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- water co-management by the FWUC's elected officers/professional staff and the government authorities
- collection, by the FWUC, of an annual user fee from users with the support of the government authorities
- autonomous financial management of user fees and the possible operating subsidy
- development of microcredit services
- intensification of agricultural development support
- monitoring of surface areas and yields
- transition management
- preparation of a "management delegation contract" for the perimeter
- validation of the "management delegation contract" for the perimeter by the FWUC and the Government.

This stage should probably last 2 to 3 years during the learning period.

The cost of management/maintenance is, in theory, mostly covered by the payment of user fees. However, the Government should be able to provide additional funds in the form of a subsidy in the case of poor harvests due to the learning period or other conditions that make it impossible for the FWUC to provide the management service.

The cost of training and technical support (credit, agriculture, etc.) should be covered by public funds or international aid.

• **Stage 4: Consolidating and Accompanying the FWUC**

The management transfer process has been completed.

Henceforth, the users, FWUC, and government authorities should jointly enforce the rules.

The government authorities should also provide the FWUC with on-going technical support.

Main Activities to Plan for the Fourth Stage:

- collaboration of government authorities with the FWUC
- on-going human resource training
- possible revision of the FWUC's statutes and/or by-laws
- possible renewal of FWUC representatives
- possible recruitment of additional professional salaried staff for the FWUC
- maintenance of infrastructures by the FWUC's elected officers/professional staff
- application of perimeter rules and punishment of infractions with the support of the government authorities
- water management by the FWUC's elected officers/professional staff
- collection, by the FWUC, of an annual user fee from users with the support of the government authorities
- autonomous financial management of user fees
- monitoring of surface areas and yields
- regular monitoring and assessment of the terms of the contract

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Numerous public hydro-agricultural infrastructures around the world are in crisis. Today, there is a consensus in favour of combining the rehabilitation of infrastructures with the transfer of responsibility for these infrastructures to farmers' organisations using participatory methods. Yet, how can one implement such processes, truly support the emergence or strengthening of local organisations, and allow a coherent and effective institutional schema to emerge progressively? Launched in 1998, the Prey Nup polder rehabilitation project is the first management transfer experiment in Cambodia. It used experimental methods to combine physical rehabilitation/upgrading, land tenure securisation, and agricultural development support in an associative construction process. Indeed, the success and durability of such a transfer of management depend on the emergence of a solid, efficient organisation with real internal regulation capacities.

This experience shows that the construction of a local capacity for management is a process that undergoes crises, faces challenges, and requires strategic steering. It shows that lasting management does not grow out of State withdrawal, but rather results from the construction of co-management shared by the State and local organisations based on a clear legal and contractual framework and State support for local regulation capacities.

This document is a translation of an excerpt of the book *Vers une cogestion des infrastructures hydro-agricoles. Construction associative et réhabilitation de polders : l'expérience du projet Prey Nup au Cambodge*, published in 2005 by Éditions du Gret as part of its Études et travaux series. The book brings together the lessons learnt from this project regarding designing and implementing responsibility transfer projects, steering institution-building actions, and the links between the elaboration of public policies and experimental projects.

The more complete French book gives a very detailed and precise description of the process of building a local capacity for management and presents the lessons that one can learn and conclusions one can draw from the experience.



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